Mrs. Tillinghast x 5321
DOCUMENTS EXPEDITING PROJECT

85th Congress
2d Session } JOINT COMMITTEE PRINT

INTERNATIONAL ECONOMIC STATISTICS

A MEMORANDUM

PREPARED FOR THE

SUBCOMMITTEE ON ECONOMIC STATISTICS

OF THE

JOINT ECONOMIC COMMITTEE

BY

THE OFFICE OF STATISTICAL STANDARDS OF THE BUREAU OF THE BUDGET

Printed for the use of the Joint Economic Committee

UNITED STATES
GOVERNMENT PRINTING OFFICE
20021 O WASHINGTON : 1958

JOINT ECONOMIC COMMITTEE

(Created pursuant to sec. 5 (a) of Public Law 304, 79th Cong.)

WRIGHT PATMAN, Representative from Texas, *Chairman*

JOHN SPARKMAN, Senator from Alabama, *Vice Chairman*

HOUSE OF REPRESENTATIVES	SENATE
RICHARD BOLLING, Missouri	PAUL H. DOUGLAS, Illinois
HALE BOGGS, Louisana	J. W. FULBRIGHT, Arkansas
	JOSEPH C. O'MAHONEY, Wyoming
HENRY O. TALLE, Iowa	RALPH E. FLANDERS, Vermont
THOMAS B. CURTIS, Missouri	ARTHUR V. WATKINS, Utah
CLARENCE E. KILBURN, New York	BARRY GOLDWATER, Arizona

JOHN W. LEHMAN, *Acting Executive Director*

SUBCOMMITTEE ON ECONOMIC STATISTICS

RICHARD BOLLING, Missouri, *Chairman*

HENRY O. TALLE, Iowa — JOHN SPARKMAN, Alabama

JAMES W. KNOWLES, *Economist*

LETTERS OF TRANSMITTAL

JANUARY 31, 1958.

To Members of the Joint Economic Committee:

The enclosed material forwarded to you is explained by its opening letters.

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

JANUARY 13, 1958.

Hon. WRIGHT PATMAN,
Chairman, Joint Economic Committee,
United States House of Representatives, Washington, D. C.

DEAR MR. PATMAN: In a letter to you dated May 25, 1957, Representative Thomas B. Curtis requested that the Joint Economic Committee staff arrange for the preparation of an evaluation of the extent of and reliability of foreign economic statistics. You referred this request to the Subcommittee on Economic Statistics for consideration.

In fulfillment of this request, I transmit the enclosed materials prepared by the staff of the Office of Statistical Standards, Bureau of the Budget, under the direction of Dr. Raymond T. Bowman, Assistant Director for Statistical Standards. Their cooperation with this subcommittee is greatly appreciated.

RICHARD BOLLING,
Chairman, Subcommittee on Economic Statistics.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., December 31, 1957.

Hon. RICHARD BOLLING,
Chairman, Subcommittee on Economic Statistics,
Joint Economic Committee,
United States Congress, Washington, D. C.

DEAR MR. BOLLING: I transmit herewith, in response to the request in your letter of July 23, 1957, the two-part staff memorandum on international economic statistics which the Office of Statistical Standards has prepared in accordance with my letter of August 5, 1957.

Part I of the memorandum, which was prepared by Harry Venneman, presents a general description of the international statistical agencies, the kinds of statistical data made available in their publications, and activities for the improvement of national statistics and their international comparability.

Part II, prepared by Raymond Nassimbene, presents a general explanation of national income and expenditure accounts, followed by an analysis of the kinds of national accounts data now available throughout the world, and some general evaluations of comparability and quality.

I trust that this memorandum will serve the purposes indicated in your letter, in which you refer to the plans of the Subcommittee on Economic Statistics for work in the area of foreign economic statistics along the lines brought to your attention by Representative Thomas B. Curtis, of the Joint Economic Committee.

Sincerely yours,

RAYMOND T. BOWMAN,
Assistant Director for Statistical Standards.

CONTENTS

	Page
Letters of transmittal	III, IV
Introduction	1
Part I: Statistical activities of international organizations	3
I. Elements of the international statistical system	3
II. Compilation of international statistics	17
III. Improvement of national statistics	27
Part II: International statistics on national income and expenditure accounts	33
I. Nature of accounts	33
II. Availability of statistics	35
III. Comparability of statistics	37
IV. Quality of statistics	40
Appendix: National Accounts Questionnaire, United Nations	47

TABLES

Table 1.—Annual national income and expenditure statistics available at end of 1956 by number of country tables in each continent	37
Table 2.—Annual national income and expenditure statistics available at end of 1956, country tables classified by comparability ratings	39
Table 3.—Quality rating of national accounts statistics in 64 countries, by continents, end of 1956	42
Table 4.—Annual national income and expenditure statistics available at end of 1956: Comparability ratings of summaries classified by country quality rating	43
Table 5.—National income and expenditure statistics available at end of 1956, by country	44

INTERNATIONAL ECONOMIC STATISTICS

INTRODUCTION

In July 1957, the chairman of the Subcommittee on Economic Statistics of the Joint Economic Committee, Representative Richard Bolling, announced that the subcommittee had approved plans for a staff memorandum on foreign economic statistics, along the lines brought to the attention of the subcommittee by Representative Thomas B. Curtis, a member of the Joint Economic Committee. The chairman of the subcommittee, in a letter dated July 23, 1957, addressed to Raymond T. Bowman, Assistant Director for Statistical Standards, Bureau of the Budget, formally requested "the cooperation of the Office of Statistical Standards, Bureau of the Budget," in the preparation of a two-part staff memorandum on foreign economic statistics, as follows:

I. SUMMARY OF STATISTICAL ACTIVITY OF INTERNATIONAL AGENCIES

This would be a summary of the activity of the committees of the United Nations and other international organizations concerned with the standardization and improvement of economic statistics in the various countries. It would summarize in nontechnical language the types of statistics on which work has been done by these agencies; the accomplishments within these areas; work now underway; the agencies or organizations involved in past and current activities; and the technical materials which could be consulted for greater detail.

II. A REVIEW OF NATIONAL INCOME AND EXPENDITURE ACCOUNTS IN LEADING COUNTRIES

This part of the memorandum would review the extent to which national income and expenditure accounts have been developed by the various countries and the extent to which concepts, definitions, statistical source materials have been standardized so that the national accounts are comparable between countries. It would summarize any available authoritative studies of the various national systems which comment upon their reliability and accuracy. The national income and expenditures accounts have been selected because: (*a*) they seem to be the most useful statistical data which could be covered; (*b*) these accounts use directly or indirectly most of the statistical data collected in most countries; and (*c*) this would tie in with a review of the national income and product accounts in this country by the National Bureau of Economic Research which is to be the subject of hearings by our subcommittee in October.

Part I of the memorandum presents a general description of the international statistical agencies, the kinds of statistical data made available in their publications, and activities for the improvement of national statistics and their international comparability.

Part II presents a general explanation of national income and expenditure accounts, followed by an analysis of the kinds of national accounts data now available throughout the world, and some general evaluations of comparability and quality.

PART I

STATISTICAL ACTIVITIES OF INTERNATIONAL ORGANIZATIONS

In connection with hearings which were conducted by the Subcommittee on Foreign Economic Policy of the Joint Economic Committee in November 1955, a statement on "Progress to Date in Achieving Uniform Reporting of Data of International Concern and Needs for the Future" [1] was submitted to the subcommittee by Stuart A. Rice, of Stuart Rice Associates, Washington, D. C. This statement presented a brief description of the organizational structure for international cooperation in the establishment of statistical standards and the compilation and improvement of statistical data available from different countries; described some of the more important general-purpose compilations of statistical data published by international organizations; and discussed the status of progress in the development of international comparability of data on a number of particular subjects considered to have special relevance to questions of international economic policy. The contents of this statement were taken into account in the preparation of the present staff memorandum. Some repetition was unavoidable, as it seemed desirable to present a self-contained document which could be utilized without the necessity for frequent reference to the 1955 statement. In general, however, the present memorandum emphasizes recent developments and gives particular attention to the significant elements of the current situation.

I. ELEMENTS OF THE INTERNATIONAL STATISTICAL SYSTEM

The concept of what Rice referred to as the "world statistical system" [2] embraces a wide variety of organizational arrangements, national and international, governmental, nongovernmental, and quasi-governmental, regional as well as worldwide, and wide-ranging as well as highly specialized in their fields of interest and activity. There is no formal overall pattern by which the diverse elements of the system are integrated, and the interrelationships among different elements are quite complex. This memorandum makes no attempt to define a pattern of organization for the system, but seeks only to describe the more important elements of the organizational structure, and to indicate some of the ways in which they are interrelated.

Statistical activities of the United Nations

The Statistical Commission.—The keystone of the statistical organization at the international level is the Statistical Commission of the United Nations. This Commission is an integral part of the United

[1] U. S. Congress. Joint Committee on the Economic Report. Subcommittee on Foreign Economic Policy. Foreign Economic Policy, hearings. 84th Cong., 1st sess., November 9–17, 1955 (Washington, U. S. Government Printing Office, 1955), pp. 30–49.
[2] Loc. cit., p. 30.

20021 O—58——2

Nations organization, created by the Economic and Social Council as one of several functional and regional bodies established to advise and assist the Council in the performance of functions assigned to it under the United Nations Charter. The Commission is composed of representatives of member governments of the United Nations. Governments are elected to membership on the Commission by the Economic and Social Council; but the persons named to represent member governments are selected by the governments (nominally—but not in actual practice—after consultation with the Secretary General; and after confirmation by the Economic and Social Council). Individuals selected to serve on the Commission are supposed to have expert knowledge and experience in statistical work, but this requirement has not always been strictly observed. From the beginning, the Economic and Social Council has followed the practice of including the five permanent members of the Security Council (China, France, U. S. S. R., United Kingdom, and United States) in the membership of its functional commissions. The United States has been represented at all sessions of the Statistical Commission by the Assistant Director for Statistical Standards of the Bureau of the Budget—Stuart A. Rice from 1946 to 1954, and Raymond T. Bowman since 1955.

The functions of the Statistical Commission are to advise and assist the Economic and Social Council in (*a*) promoting the development of national statistics and the improvement of their comparability; (*b*) coordination of the statistical work of the specialized agencies; (*c*) development of the central statistical services of the Secretariat of the United Nations; (*d*) advising organs of the United Nations on general questions relating to the collection, interpretation, and dissemination of statistical information; and (*e*) promoting the improvement of statistics and statistical methods generally. Although the Commission's functions are largely advisory, and there is no governmental authority which can be invoked to effect compliance with its findings, recommendations of the Commission on statistical questions are widely accepted by national governments and international organizations, and in a sense it can be regarded as part of the legislative branch of the international statistical system.

The work of the Statistical Commission was reviewed briefly by Rice in his 1955 statement,[3] with particular reference to the procedures followed in the development of international statistical standards. All of the important international statistical standards formulated and approved by the Statistical Commission up to the end of its eighth session, in 1954, are included in a comprehensive list of the statistical concepts, definitions, methods and classifications established by international conventions, or by regulations and recommendations adopted by competent organs of international organizations, published by the United Nations in 1955.[4] Since that time the Commission has held only one session, its ninth, at which it approved recommendations for the technical guidance of governments on statistics of wholesale, retail, and service trades, including recommendations on coverage and items of data to be sought in comprehensive (quinquennial or decennial)

[3] Loc. cit. See especially p. 32 and chart II, p. 34.

[4] United Nations. Statistical Office. Directory of International Standards for Statistics (Statistical Papers, Series M, No. 22, New York, January 1955). Citations are included identifying the sources in which the full authorized texts of the standards and recommendations may be found.

censuses of distribution and in monthly, quarterly, and annual surveys, and detailed definitions and distinctions for the reporting unit and items of data.[5] At the same session, the Commission gave preliminary consideration to recommendations for the 1960 world population census program, approved some minor revisions and clarifications of previous recommendations on international trade statistics, and took steps toward later development of standards in a number of other fields of statistics.

The Statistical Commission will hold its 10th session at U. N. Headquarters in New York, April 28–May 16, 1958. The agenda for the session will include the following topics: Needed changes in the international standard industrial classification of all economic activities; proposals for revision of standards for basic industrial statistics; the most appropriate reporting or statistical unit for economic data (the question of the enterprise versus the establishment, etc.); problems in collection of wholesale price statistics; indexes of quantum and unit value of external trade; proposed amendments to the System of National Accounts and Supporting Tables; problems and methods of estimating capital formation and proposed amendments in the recommended concepts and definitions in this field; and recommendations for the 1960 world population and housing census program.

The reports of the Statistical Commission to the Economic and Social Council[6] constitute a basic reference source, not only on the work of the Commission but on developments in international statistics generally. In addition, the progress reports, working papers and other documentation prepared by the United Nations Secretariat and the specialized agencies for each session of the Commission contain a wealth of material on various statistical subjects not otherwise readily available. A complete list of the materials of this type that have been issued since the Commission was established would be too voluminous to include in this memorandum. The Commission's reports to the Economic and Social Council, cited above, identify and describe the documentation available to it on each subject considered, however, and give the United Nations document number in each case. A few examples of the types of materials contained in such documentation will serve to illustrate their general character.

At its sixth session, in 1951, the Statistical Commission requested the Secretary General to prepare for consideration at each succeeding session a general summary report on developments in international statistics, covering not only developments in the statistical work of organs of the United Nations, but also those aspects of the work of other international, regional and national organizations and agencies that would be of interest to the Commission or relevant to its objectives. Such reports were prepared and submitted to the Commission at its seventh, eighth and ninth sessions, held in 1953, 1954, and 1956, respectively.[7] The report prepared for the ninth session, which is similar in organization and arrangement to the earlier reports, was

[5] United Nations. Statistical Commission. Report of the Ninth Session (United Nations Doc. No. E/2876), Annex, pp. 25–30. New York, 1956. Also printed as part of the Official Records of the Economic and Social Council, 22d Session, Supplement No. 7.

[6] Following is a list of the United Nations document numbers for the reports of the Statistical Commission on all sessions which have been held up to 1957: Nuclear session (1946): E/39; first session (1947) E/264; second session (1947): E/577; third session (1948): E/795; fourth session (1949): E/1312; fifth session (1950): E/1696/Rev. 1; sixth session (1951): E/1994; seventh session (1953): E/2365; eighth session (1954) E/2569; ninth session (1956): E/2876.

[7] United Nations Docs. Nos. E/CN.3/148, E/CN.3/170, and E/CN.3/196, respectively.

presented in three parts. Part I reviewed the development of international statistical standards and their application in nearly a score of different subject fields. Part II contained a review of advisory and training activities in statistics, including a list of the methodological handbooks, manuals, guides, and similar materials that had been issued by the United Nations and the specialized agencies on various statistical subjects, a description of the statistical advisory services made available to countries requesting direct technical assistance in the development of their statistical programs, and a list of the statistical education and training centers organized by international agencies from 1948 to 1955. Part III presented a brief report on recent developments in the applications of statistical sampling, which the Commission had specifically requested.

The background information and other working materials assembled by the Secretariat for use by the Commission in its consideration of proposed standards or other recommendations on particular subjects often reflect the results of very extensive research and investigation which are not available anywhere else in such convenient form. In preparation for consideration by the Commission at its 10th session, to be held in 1958, of proposed revisions in standards for basic industrial statistics, for example, the Secretariat has made a careful study of the methods, practices, and experience of more than 60 countries which have undertaken comprehensive industrial censuses or other inquiries in the field of basic industrial statistics since 1952. The documentation presenting results of this study (which has already been circulated in provisional form more than 6 months in advance of the session, to permit careful review by members of the Commission) includes tabulations showing, for each census of industry or similar inquiry undertaken by each country during the period since 1952, the fields of industry covered; the kind of reporting unit from which data were obtained, and whether all establishments or other reporting units were covered (or, if not, the types and sizes of establishments included); and details on the items of data obtained—e. g., whether figures were collected on form of organization, employment, manhours, wages and salaries, capacity of equipment and machinery, expenditures for fixed assets, stocks, or inventories, costs of raw materials, fuels, power and water consumption, value of production, sales, or shipments, and gross output, and the like.[8] Many of the other working papers for each session of the Commission likewise reflect the results of extensive study of national practices, previous international action, degree of international comparability of available data, problems involved in achieving increased standardization of concepts, definitions, and methods, and the like.

Some of the specialized agencies—notably the International Labor Office, International Monetary Fund, Food and Agriculture Organization of the United Nations, United Nations Educational, Scientific, and Cultural Organization, and World Health Organization—regularly submit to the Commission progress reports on their statistical programs or particular aspects of their work that are of interest to the Commission. The documentation for the 10th session of the Commission, for example, will include the following:

[8] These tabulations are contained in annexes to papers on Recent Basic Industrial Enquiries (United Nations Doc. No. E/CN.3/L.40/Add. 1) and Methods of Obtaining Industrial Statistics (No. E/CN.3/L.40/Add. 2).

1. Progress report by the International Monetary Fund on developments in the field of balance-of-payments statistics since the ninth session (E/CN.3/253).

2. Memorandum by the International Labor Office on work undertaken in the methodology of family living studies and on methods used to measure underemployment (E/CN.3/250).

3. Progress report by the United Nations Educational, Scientific, and Cultural Organization on its statistical work, with particular reference to the collection, analysis, and publication of statistics on illiteracy and levels of educational attainment, public expenditures for education, etc., and the development of international standards and international comparability of educational statistics (E/CN.3/252).

4. Report by the International Labor Office on action taken by the Ninth International Conference of Labor Statisticians on revisions in the international standard classification of occupations (E/CN.3/251).

On occasion, special committees of experts are convened by the United Nations—sometimes in collaboration with one or more of the specialized agencies—to prepare reports on particular subjects with a view to the formulation of international standards or recommendations, and their reports form part of the documentation for sessions of the Statistical Commission. In 1953, for example, a Committee of Experts was convened under the joint sponsorship of the United Nations, the International Labor Organization, and the United Nations Educational, Scientific, and Cultural Organization, and, in cooperation with the Food and Agriculture Organization of the United Nations and the World Health Organization, to prepare a report on the International Definition and Measurement of Standards and Levels of Living. This report considered fairly intensively such aspects of the subject as methodology and technical problems of measurement, the role of social and cultural analyses, the kinds of components of levels of living that can be measured quantitatively, and ways of improving indicators of such components; reviewed the availability of statistics in various parts of the world pertaining to various suggested indicators; and presented a series of recommendations. It was submitted to both the Social Commission and the Statistical Commission for consideration, forming part of the documentation for the eighth session of the latter, in 1954.[9]

It should be evident from the foregoing that the Statistical Commission has a central role, within the international statistical system, not only for the formulation of international statistical standards but for overall coordination of the decentralized elements of the complex organizational structure for international statistical cooperation. The importance of this coordinating function cannot be overstressed.

The Statistical Office of the United Nations.—If the Statistical Commission can be considered to serve as the principal arm of the legislative branch of the international statistical system, the Statistical Office of the United Nations may be regarded as an equally vital organ of the executive branch. The Statistical Office was established as part of the Secretariat of the United Nations to perform central statistical functions for the organs of the United Nations as a whole, and to provide secretariat services for the Statistical Commission. It does the actual work of compiling and making available the wide range of statistical data supplied by member governments that are

[9] As United Nations Docs. Nos. E/CN.3/179 and E/CN.5/299.

needed by the United Nations and for the general purposes of international cooperation. As may be inferred from the preceding discussion of the work of the Statistical Commission, the Statistical Office also has an essential role in the development of international statistical standards, performing most of the staff work which serves as the basis for action by the Commission. It serves as the chief instrument for efforts to improve national statistical services. And it carries on the continuing, day-to-day activities by means of which a high degree of coordination is maintained in the operation of the international statistical system.

The several functions of the Statistical Office are not described here in detail, as they are considered elsewhere in this memorandum; what is involved in provision of secretariat services for the Statistical Commission has already been illustrated; the scope and variety of the statistics compiled and published by the Office will be covered in section III, and the work of the Office in the improvement of national statistics will be mentioned in section IV. The coordinating role of the Office should be explained here, however, as it will not be considered as such in other sections.

Coordination of statistical activities at the international level is largely a matter of mutual understanding and effective interchange of information among organizational units with operating functions. The United Nations, the several specialized agencies, and other organizations constituting the structure for international statistical cooperation are autonomous entities, not subject to any central control or authority. The Statistical Office of the United Nations, by virtue of its central position in the organizational structure and its wide-ranging operating responsibilities, performs a unique role in promotion of understanding and exchange of information. It maintains continuing contact, through correspondence and consultation, with practically all the other organizations and agencies, national as well as international, which perform statistical functions of general interest. Members of its staff at United Nations Headquarters and regional offices, in attendance at international conferences, on temporary assignment to individual countries in connection with technical-assistance projects, participating in regional seminars or training centers, and the like, are in direct contact with and are at least generally familiar with practically all the important statistical work that is being carried on in most parts of the world. Its offices attract visits by statistical experts from a great many countries. Its periodical statistical publications, manuals and handbooks of statistical standards and methods, and other publications receive worldwide distribution; and the preparation of these publications, as well as studies of statistical practices and methods carried out in behalf of the Statistical Commission, require a substantial and continuing flow of communications of virtually worldwide dimensions.

Thus, while it lacks governmental authority to control or direct the statistical activities of other agencies and organizations, its accumulated fund of expert knowledge and information and its continuing direct contacts in different parts of the world enable the Statistical Office to fill a position of substantial influence and leadership. In combination with the spirit of cooperation and mutual respect which pervades international statistical organizations and agencies generally,

this results in a very high degree of coordination and effective distribution of effort in the international statistical system as a whole.

Regional commissions of the United Nations.—The three regional commissions of the United Nations Economic and Social Council—Economic Commission for Asia and the Far East (ECAFE), Economic Commission for Europe (ECE), and Economic Commission for Latin America (ECLA)—perform important statistical functions within their fields of interest and geographic areas. These commissions are subordinate bodies of the Economic and Social Council, and each serves as a regional arm of the Council in dealing with problems of particular interest to its member countries. They have their own secretariats, which are administratively responsible to the Department of Economic and Social Affairs. Their programs of work are coordinated with the work at U. N. Headquarters and in other regions, as well as with that of the specialized agencies. Their statistical functions include assistance in the application of international statistical standards within the region, the conduct of special regional studies, and the compilation of statistics of importance to the solution of regional problems.

Within both ECE and ECAFE, conferences of regional statisticians have been established, consisting of the chief statistical officers of countries participating in the work of the respective regional commissions, to promote improvement of statistics on a regional basis. These conferences serve, in effect, as regional statistical commissions. The Conference of European Statisticians, for example, has sought agreement among its members on statistical standards and methods in fields of particular interest to European countries, such as capital formation, indicators of short-term economic changes, and various aspects of national accounting. Results of such regional consideration of statistical questions are taken into account by the Statistical Commission, when it take up the same or related questions. The regional economic commissions have also established special working parties or standing committees to work intensively on improvement of statistics on particular subjects on which work has not progressed very far on a world basis, including statistics of inland transport, steel production and consumption, coal, timber, electric power, housing and building, and government finance.

A detailed description of the statistical work of these regional commissions would be beyond the scope of this memorandum. Details can be found, however, in the reports and other documents issued by the commissions and their subsidiary bodies. Each of the commissions submits annual reports to the Economic and Social Council of the United Nations covering all aspects of their work programs, including statistical activities. These reports are printed as supplements to the official records of the Council. Citations to the most recent issues of these reports and to other selected documents containing more detailed information on statistical activities of the regional commissions are presented in the following bibliographic notes.

ECAFE: The most recent annual report of the Economic Commission for Asia and the Far East covers the period from February 15, 1956, to March 28, 1957 (U. N. Doc. No. E/2959, May 6, 1957). Complete citations to all previous reports of the Commission are listed in a footnote to the first paragraph of the text. The body of the report reviews the activities of the ECAFE Secretariat and the meetings and other activities of all subsidiary bodies of the Commission, including the Fourth Regional Conference of Statisticians. Annex III presents a "List of

Publications and Principal Documents Issued Since the 12th Session" of the Commission, including a complete list of the working papers and other documentation for the Fourth Regional Conference of Statisticians. Particularly noteworthy among the documents listed are a "Guide to Asian Economic Statistics" (E/CN.11/447, March 6, 1957) which lists and describes briefly the principal statistical series of general economic interest compiled and published by individual countries of the ECAFE region, and a report on "Statistical Organization and Activities in Countries of Asia and the Far East (1953–56)" (E/CN.11/448, March 7, 1957) which reviews the principal statistical meetings and training centers within the ECAFE region and reports on statistical developments in 21 ECAFE countries. Reference should also be made to an earlier document, prepared for the Eighth Session of ECAFE, which reviewed Methods of National Income Estimation in Countries of Asia and the Far East (E/CN.11/323, November 29, 1951), and which was supplemented by a series of annexes analyzing methods of national income estimation in particular countries in greater detail. It should be noted that the ECAFE Regional Conference of Statisticians has now been established as a continuing body, to be known as the Conference of Asian Statisticians, the work of which should be followed closely to maintain familiarity with the development of statistical organization and activities in Asia and the Far East. Finally, reference should be made to reports and other documentation for meetings of the ECAFE workshop on budget reclassification (issued as ECAFE documents with the series designation E/CN.11/BRW–), which include valuable source materials on public finance statistics.

ECE: The most recent annual report of the Economic Commission for Europe covers the period from April 22, 1956, to May 15, 1957 (U. N. Doc. No. E/2989). It also includes citations to all previous reports of the Commission (footnote 1 to the first par. of the text). A great deal of the work of the Commission, its Secretariat and its subsidiary bodies is concerned with statistical matters, but the report to the Economic and Social Council summarizes these activities only very briefly. For more detailed information reference should be made to the reports and other documentation of the Conference of European Statisticians and other ECE organs which are identified in the Commission's report as having statistical functions. A fairly detailed review of the statistical activities under the programs of the various technical committees of ECE (e. g., steel, coal, electric power, housing, timber, inland transport, industry and materials, etc.) is prepared by the Secretariat for each plenary session of the Conference of European Statisticians. The most recent report, prepared for the Fifth Plenary Session, covers the period from July 1956 to June 1957 (Conf. Eur. Stats/75, May 23, 1957). The first paragraph includes reference numbers to all such reports previously submitted; and the text includes citations to reports and other documentation of the several committees. The work of the Conference of European Statisticians itself is described in reports on its plenary sessions. The First Plenary Session was convened in 1953 as the Third Regional Meeting of European Statisticians, and the report on the session was issued as a document of the Statistical Commission (E/CN.3/Conf. 3/1, June 24, 1953). Reports on all subsequent sessions have been issued as documents of the Conference of European Statisticians (Conf. Eur. Stats/19, June 26, 1954; Conf. Eur. Stats/37, October 7, 1955; Conf. Eur. Stats/61, July 16, 1956; and Conf. Eur. Stats/80, July 10, 1957). These reports include references to reports of working groups and other documentation considered under each topic on the agenda for the session. The working group reports in turn cite working papers and memoranda prepared by the Secretariat, national statistical offices, and individual experts, to which reference should be made for comprehensive treatment of particular subjects. Many of the working papers and other materials prepared for the Conference and its working groups contain valuable material on important subjects in the field of economic statistics that is not available in any other sources, or can be obtained elsewhere only with great difficulty (and only in languages other than English), including descriptions of national practices and significant original contributions by experts in such fields as statistics of fixed capital formation, capital consumption and savings, national accounts, input-output analysis, applications of electronic data-processing equipment, measurement of short-term economic changes, statistics of stocks and work in process, and many others.

ECLA: The latest annual report of the Economic Commission for Latin America covers the period from May 16, 1956, to May 27, 1957 (E/2998). Like the reports of the other regional commissions, it includes citations to previous reports and presents a general summary of activities during the period covered. ECLA, however, does not engage in statistical activities to the same extent or in the same

manner as the other two regional commissions. ECLA is concerned with statistics primarily as a means of economic analysis and study of problems of economic development. It conducts special studies on the economic development of individual Latin American countries, and on specific industries and commodities of particular importance in the national economies of the region. It collaborates in statistical work of other international groups in the Latin American area, including projects of the Inter American Statistical Institute (discussed below) and statistical activities under the Central American economic integration program (such as the development of uniform customs nomenclature and other work of the Subcommittee of Statistical Coordination of the Central American Economic Cooperation Committee). ECLA also prepares an annual Economic Survey of Latin America which (together with similar surveys for other regions) supplements the World Economic Survey published annually by the United Nations Department of Economic and Social Affairs. ECLA does not have a functional or organizational unit comparable to the Conference of Asian Statisticians or the Conference of European Statisticians, because the functions performed by these groups in Asia and in Europe are carried on in the Western Hemisphere by the Inter American Statistical Institute, the work of which will be covered subsequently in this memorandum.

Other United Nations organs.—Other subsidiary organs and administrative units of the United Nations have responsibility for particular areas or subjects which involve compilation or analysis of statistics or related activities. Among these may be mentioned: (*a*) the Population Branch of the Bureau of Social Affairs, which collaborates with the Statistical Office in certain aspects of its work on demographic statistics, prepares population and labor force estimates and analyses, and conducts special demographic studies; (*b*) the Fiscal and Financial Branch of the Bureau of Economic Affairs, which has done valuable work in the field of statistics of public finance, including preparation of a manual for the classification of Government financial accounts; (*c*) various units of the Department of Economic and Social Affairs which collaborate in the preparation of the annual World Economic Survey and World Social Survey; (*d*) units of the Department of Trusteeship and Information from Non-Self-Governing Territories which assemble and analyze statistical and other information submitted in response to the trusteeship questionnaire (U. N. Doc. No. T/1010) and the standard form for the guidance of members in the preparation of information to be transmitted under article 73e of the Charter (U. N. Doc. No. A/1836); (*e*) the Permanent Central Opium Board, which submits annual reports to the Economic and Social Council on statistics of narcotics; and (*f*) the several organs and administrative units concerned with programs of relief and rehabilitation, such as the High Commissioner for Refugees and the UNREF Executive Committee.

Statistical activities of the specialized agencies

The specialized agencies which have been brought into relationship with the United Nations have important statistical functions and responsibilities within their fields of interest. Ten such agencies are now in existence: International Labor Organization (ILO), Food and Agriculture Organization of the United Nations (FAO), United Nations Educational, Scientific and Cultural Organization (UNESCO), International Civil Aviation Organization (ICAO), World Health Organization (WHO), International Bank for Reconstruction and Development (IBRD), International Monetary Fund (IMF), Universal Postal Union (UPU), International Telecommunications Union (ITU), and World Meteorological Organization (WMO). Each of these agencies is an autonomous intergovernmental organization,

created by international convention and existing independently of the United Nations.

Each of the specialized agencies is responsible for statistical work within its particular fields, but all have entered into formal agreements with the United Nations which include articles dealing with statistical services, delineating areas of responsibility and defining interrelationships. The provisions of these agreements relating to statistics conform generally to the principles recommended by the Statistical Commission in a statement of "general provisions respecting statistics to be incorporated in agreements between the United Nations and the specialized agencies," approved at its nuclear session (1946).[10] The terms of the agreements are designed to promote maximum cooperation among the agencies and the most effective utilization of available resources. The United Nations is recognized as "the central agency for the collection, analysis, publication, standardization and improvement of statistics serving the general purposes of international organizations," including statistics of external and internal trade, national income, industrial production (other than agricultural, forestry and fishery industries, which are in the area of responsibility of FAO), wholesale prices, transport (other than air transport, which is the responsibility of ICAO), population and vital statistics, and certain subjects in the general social field not within the scope of responsibility of UNESCO or ILO. Each of the specialized agencies, in turn, is recognized as having similar responsibilities for statistical work within its particular fields of interest.

The character of the statistical activities of the specialized agencies within their particular fields is generally similar to those of the United Nations organs described above. They compile and publish statistical data, conduct special studies, develop standards, provide consultant and advisory services to national statistical agencies, sponsor and participate in statistical training activities, and cooperate in other ways to promote better statistics. Reference will be made to some of the statistical publications of the specialized agencies in section III of this memorandum; and their cooperation in programs for improvement of national statistics will be mentioned in section IV. Citations to the more important statistical publications issued by these agencies, as well as to special studies and other significant documentation on particular subjects, may be found in progress reports and memoranda prepared for sessions of the Statistical Commission and the Conference of European Statisticians, mentioned above. Particular reference should be made here, however, to important documentation on statistical subjects prepared for meetings of such bodies as the International Conference of Labor Statisticians, the General Assembly and the Statistics Division of ICAO, the World Health Assembly and committees of experts on health statistics convened by WHO, the FAO Council and standing and ad hoc committees and commissions, and comparable groups of the other agencies. Selected references to such documentation are given in the following bibliographic notes.

1. *ILO.*—A general review of developments in labor statistics is prepared for each International Conference of Labor Statisticians. The most recent review of this type (General Report on Labor Statistics, Report I, prepared for the Ninth International Conference of Labor Statisticians, Geneva, 1957) includes chapters on Production of National Labor Statistics, The ILO Program in Labor

[10] U. N. Doc. No. E/39, par. 27.

Statistics, Technical Assistance in Labor Statistics, Other International Action for the Development of Labor Statistics, and a List of Recent ILO Publications Concerning Labor Statistics. It also refers to other documentation for the Conference on specific items on the agenda. The text of resolutions adopted by the ICLS is published separately for each session of the Conference by ILO. Current ILO activities and other developments in labor statistics are reported in the International Labor Review.

2. *FAO.*—The Director General of FAO submits reports on the work of FAO at each session of the FAO Conference. The most recent report, submitted at the ninth session, covers 1956–57 (FAO document symbol C 57/3). It covers statistical work in all FAO fields, and contains references to other documentation, including a list of all FAO publications issued during the period under review. Resolutions and reports of the sessions of the FAO Council are published separately.

3. *ICAO.*—The Annual Report of the ICAO Council to the Assembly, the ICAO Bulletin and the Digests of Statistics include information on ICAO activities and other developments in aviation statistics. An Index of ICAO Publications is issued separately, with cumulated annual editions.

4. *WHO.*—The Work of WHO (the annual report of the Director General to the World Health Assembly and to the United Nations, published in the WHO official records) and the WHO Bulletin and Chronicle (monthly) contain information on the statistical work of the organization, references to WHO publications and documents, and news of developments in public-health statistics and related subjects.

5. *Other agencies.*—Reference should be made to the UNESCO Chronicle (monthly) and International Yearbook of Education; the IMF International Financial Statistics (monthly); and similar publications of other specialized agencies cited in later sections of this memorandum for information on statistical activities of these agencies and current developments in statistics in their fields of interest.[11]

Statistical work of other international bodies

Important statistical functions are performed by a number of other international and regional organizations and agencies outside the framework of the United Nations and the specialized agencies. These include intergovernmental as well as quasi- and non-governmental organizations. In the following paragraphs the more important statistical activities of several such bodies are reviewed briefly, and sources of additional information on their work are indicated.

Inter American Statistical Institute (IASI).—In the Western Hemisphere, the Inter American Statistical Institute (IASI) performs important statistical functions in close collaboration with the United Nations and the specialized agencies, as well as with the organs of the Organization of American States (by agreement with which its Secretariat serves as the Division of Statistics of the Pan American Union.) IASI is neither a wholly governmental nor wholly non-governmental organization, having both individual and governmental members and serving both as a professional statistical society (like the International Statistical Institute, described below) and an official body for intergovernmental cooperation in the field of statistics for countries of the Western Hemisphere. The purposes of IASI are to stimulate improved methodology in the collection, tabulation, analysis, and publication of statistics in the American nations; to encourage measures designed to improve international comparability of statistics in the region; to provide a medium for professional collaboration among American statisticians; and to cooperate with national and international organizations in advancing the science and administration of statistics. It provides technical advisory services to govern-

[11] Publications devoted primarily to presentation of statistics are cited in sec. III; and reports on technical assistance in statistics, research studies, and other statistical activities are cited in sec. IV. Both types of publications, however, may include special articles, bibliographic materials, and the like.

ments on statistical problems, sponsors inter-American statistical conferences and related technical meetings (notably the annual sessions of its Committee on Improvement of National Statistics, or COINS, which is composed of the chief statistical officers of member governments), sponsors and participates in operation of statistical training centers and programs, and performs many other services related to its objectives. It draws its financial support chiefly from assessments on member governments and dues from its individual and institutional members.

IASI serves in many respects as a regional arm of the United Nations organization in the field of statistics, performing functions within its region parallel to those of the Conference of Asian Statisticians and the Conference of European Statisticians in their areas. Thus its Committee on Improvement of National Statistics (COINS), which is composed of the chief statistical officers of the American nations, is recognized by the United Nations, FAO, and other specialized agencies as the appropriate body within the area for regional consultation on plans for the 1960 world population and agricultural census programs, and on proposed international standards or recommendations in particular fields of statistics.

Details on the work of IASI are available in a number of published sources, but can be found most conveniently in the pages of Estadística, the official quarterly journal of the Institute. Supplements to the journal present the full texts of reports on sessions of COINS,[12] summary reports and complete texts of resolutions of Inter-American Statistical Conferences, and other basic documents. Regular issues of the journal include the texts of some of the more important working papers prepared for sessions of COINS, other special articles on statistical subjects of current interest, notes and reports on IASI activities (including reports on meetings of the IASI Executive Committee and other official documents), announcements and lists of IASI publications, and other materials and information of interest to members. Documentation for sessions of COINS includes reports of its Census Subcommittee (COTA), reports by the IASI Secretariat on the work of the Institute, and reports on studies of national practices or methodology in particular fields of statistics undertaken at the request of COINS. Some of these documents, like documentation for sessions of the Statisticial Commission and the Conference of European Statisticians, constitute valuable source materials not otherwise readily available.

Organization for European Economic Cooperation (OEEC).—This agency is an intergovernmental organization established under the Convention for European Economic Cooperation in 1948, to seek common solutions to economic problems of the countries of Western Europe. Its statistical activities stem from its operating functions in such fields as trade, industry, agriculture, manpower and migration, and productivity. Although primarily concerned with statistics as a user of data supplied by governments or compiled by other international organizations, OEEC has also cooperated in the development of standards and improvement of national statistical services. It publishes monthly, quarterly, and annual compilations of data on

[12] The report on the V session of COINS, held in Washington, D. C., November 14–27, 1957, will be published as a supplement to Estadística, No. 57, December 1957. The report will include citations to reports on previous sessions, and a complete list of the working papers and other documentation prepared for the V session.

industrial and agricultural production, internal and external trade, national accounts, prices, and related subjects. The statistical work of OEEC is coordinated with that of the United Nations and the specialized agencies by means of informal but close and effective working relationships at the secretariat level, and by the use, as far as possible, of common definitions and classifications.

In addition to its regular statistical bulletins,[13] OEEC has published a number of special studies of considerable value in particular fields of statistics, including An International Comparison of National Products and the Purchasing Power of Currencies (February 1954); Basic Statistics of Industrial Production, 1913–52 (July 1953); and A Standardized System of National Accounts (November 1952).

International Statistical Institute (ISI).—Several international organizations of a nongovernmental character also constitute important elements of the international statistical system. Such organizations share with the intergovernmental agencies concern for development and improvement of statistics, some on a fairly broad scale and others in particular subject fields. They do not have official (i. e., governmental) functions or responsibilities (although some of them do carry on operating statistical programs); they do not depend upon governmental revenues for their financial support; and their existence and activities do not derive from governmental authority. While the analogy greatly oversimplifies a rather complex situation, the relationships of the nongovernmental organizations to the official or intergovernmental parts of the international statistical system can be visualized as comparable to that of the American Statistical Association to the statistical agencies of the United States Government.

The oldest and most notable among the international nongovernmental statistical organizations is the International Statistical Institute (ISI), an autonomous society devoted to the development and improvement of statistical methods and their application throughout the world. The role of ISI may be characterized as primarily professional and scientific in character, in contrast to the official role of the United Nations and other intergovernmental organizations. Its objectives are closely related to those of the Statistical Commission of the United Nations. The latter, however, may seek implementation of its findings directly through governmental channels, by recommendations to the Economic and Social Council, the Secretary General, or member governments of the United Nations; while ISI seeks its objectives primarily through action by the statistical profession.

ISI is composed of about 375 honorary, ordinary, and ex officio members; and five other international professional societies and some 15 national statistical associations are affiliated with it.[14] Membership is limited, under the statutes, to persons distinguished for their contributions to the development or application of statistical methods or to the administration of statistical services, and election to membership is regarded as a high honor by the statistical profession. Persons

[13] General Statistics Bulletin (bimonthly); Series I—Foreign Trade by Geographical Areas (monthly); Series II—Foreign Trade by Commodities and Geographical Areas (quarterly); Series III—Foreign Trade in Selected Commodities (quarterly); Series IV—Foreign Trade by Countries of Origin and Destination (semiannually); Definitions and Methods (October 1953).

[14] List of Members of the International Statistical Institute, in Revue de l'Institut International de Statistique, vol. 24, No. 1/3, 1956, pp. 165–177.

holding designated offices in national statistical agencies and in the statistical services of intergovernmental organizations, as well as persons named by affiliated organizations to serve as their representatives, hold ex officio membership in ISI.

The regular (biennial) and special sessions of ISI constitute the principal nonofficial international forum for consideration at a professional scientific level of statistical methods and their applications. Participation in the sessions is not limited to ISI members, and they are attended by outstanding statistical experts from all parts of the world. Proceedings of the sessions, the latest of which was held in Stockholm, Sweden, in August 1957, are published in the ISI Bulletin.[15] Current activities of the Institute are reported in its Revue, 1 to 4 issues of which are published each year. The Revue includes an International Statistical Bibliography (also reprinted separately) which serves as the most comprehensive guide available to the world's statistical literature. ISI also publishes an International Journal of Abstracts on Statistical Methods in Industry (three issues per year, since 1954), and a series of Occasional Publications.[16] As one part of a statistical education program carried on with the financial assistance of UNESCO, ISI sponsored the preparation of a multilingual statistical dictionary which was published commercially this year.[17] In connection with this program ISI has sponsored and continues to collaborate in the maintenance of international statistical education centers at Calcutta, India, and Beirut, Lebanon.

Other organizations.—An enumeration of the important elements of the international statistical system would be incomplete without mention of several other regional bodies, specialized international groups, and international organizations of a professional and nongovernmental character. In the latter category are a number of international professional associations concerned with specialized fields in which applications of statistical methodology are important—notably the International Union for the Scientific Study of Population, the Biometric Society, the International Association for Research in Income and Wealth, and the Econometric Society. These and other international, regional, and national associations and organizations concerned with various aspects of statistics all contribute significantly to the development and improvement of statistics generally or in particular fields or areas. Together they constitute an important part of the organizational structure for international statistical cooperation.

The following list, which is not intended to be complete or comprehensive, will serve to illustrate the range and variety of fields and areas in which various agencies and organizations, in addition to those already mentioned, perform statistical functions. Following the names of the agencies listed, citations are given wherever possible to their statistical publications or sources of information about their statistical work.

[15] Bulletin de l'Institut International de Statistique, vols. 1-34. The latest volume published to date contains proceedings of the 28th sess., held in Rome, September 1953. Proceedings of the 29th sess., held in Petropolis, Brazil, June-July 1955, will appear in a volume which is now in preparation.

[16] The following volumes have been published since 1954: International Statistics of Large Towns—A1. Population and Vital Statistics of Large Towns, 1946-51 (1954), and B1. Housing and Building Statistics, 1946-53 (1956); and Bibliography on Index Numbers (1956).

[17] A Dictionary of Statistical Terms, prepared for the International Statistical Institute with the assistance of UNESCO by Maurice G. Kendall and W. R. Buckland (Oliver & Boyd, Ltd., Edinburgh, and Hafner Publishing Co., New York, 1957). The volume contains definitions, in English, of more than 1,700 terms, and lists equivalent terms in French, German, Italian, and Spanish.

Central American Committee for Economic Cooperation, Subcommittee of Statistical Coordination (for a brief statement of its functions and an account of its first two meetings, see the U. N. Statistical Office Statistical Notes, Statistical Papers, Series B, No. 20, July 1956, pp. 7–8).

Commission for Technical Cooperation in Africa South of the Sahara, Inter-African Statistical Committee (see references in sec. IV of this memorandum).

Committee for Whaling Statistics (International Whaling Statistics, annual publication).

Conference of British Commonwealth Statisticians (see Report of the Fourth Conference * * * held in London, September 1956, published by the British Central Statistical Office, London, 1957).

High Authority of the European Coal and Steel Community (Informations Statistiques, bimonthly).

International Cotton Advisory Group (Cotton Quarterly Statistical Bulletin).

International Rice Commission.

International Rubber Study Group (monthly Rubber Statistical Bulletin).

International Sugar Council (monthly Statistical Bulletin, and Pocket Sugar Year Book).

International Tea Committee (monthly Statistical Summary, and annual Bulletin of Statistics).

International Tin Council (monthly Statistical Bulletin, and biennial Statistical Year Book, with Supplement in alternate years).

International Union of Official Travel Organizations (annual International Travel Statistics).

International Wheat Council.

International Wool Study Group.

Union International des Chemins des Fers.

II. COMPILATION OF INTERNATIONAL STATISTICS

The agencies and organizations described in the preceding section of this memorandum compile and make generally available a very large quantity and variety of statistical data. The Statistical Office of the United Nations alone compiles and publishes more than 700 regular statistical series, and at least twice as many other series are compiled by other international agencies. As Rice noted in his 1955 statement, a mere list of the titles of statistical series compiled by international organizations, "with no descriptive text or analysis of scope or coverage, fills some 78 pages." [18]

Data compiled by the international statistical agencies are made available in their monthly and quarterly statistical bulletins, yearbooks, special studies and surveys, and other publications. Some twenty different annual publications and a like number of monthly and quarterly bulletins are now being issued. No attempt is made here to analyze or describe in detail the contents of all of these publications. Instead, a general review is presented, developed around the contents of the Monthly Bulletin of Statistics published by the Statistical Office of the United Nations, which is probably the most widely used of the periodic international statistical publications. References are given to other publications containing data on the same subjects, more detailed series, and series on topics not covered in the monthly bulletin. The review thus will serve as a general bibliographic guide to the data compiled by international statistical agencies generally. It should be noted, however, that this review omits many of the details covered in parts III and IV of the 1955 statement [19] by Rice referred to above. It should also be noted that

[18] Loc. cit., p. 36. The list referred to was published by the Statistical Office of the United Nations: List of Statistical Series Collected by International Organizations (Statistical Papers, Series M, No. 11, Rev. 1, February 1955).

[19] Rice, loc. cit., pp. 36–47 (pt. III, Statistics Compiled by International Organizations, and pt. IV, Statistics of Special Relevance to Foreign Economic Policy).

part II of the present memorandum deals in some detail with national income and expenditure accounts, and this review, accordingly, omits details on that subject.

Monthly Bulletin of Statistics: General description

Publication of an international Monthly Bulletin of Statistics was initiated in 1919 by the Supreme Council of the Allied and Associated Powers. The League of Nations assumed responsibility for it in June 1921, and published it continuously from that time until the end of 1946. With the transfer of the statistical functions of the League to the United Nations, responsibility for the publication was placed in the Statistical Office of the United Nations, beginning in January 1947, and the present Monthly Bulletin of Statistics is now in its eleventh year of publication under UN auspices.

The Monthly Bulletin of Statistics presents currently the most recent data available from a very substantial proportion of the countries of the world on a wide range of subjects, including population and manpower, production, transportation, trade, wages and prices, national income, and finance. The statistics presented are compiled by the Statistical Office of the United Nations in cooperation with specialized agencies and other international bodies (as indicated under specific subject headings, below), almost entirely from official sources in the various countries. Each issue contains some 50 or more regular tables, some of which appear monthly and others quarterly, semiannually or without fixed periodicity, as well as special tables and articles on selected subjects of particular interest. Most of the regular bulletin tables show annual figures for a recent period (1950–56 in the current issue) and the latest monthly or quarterly figures for the last 18 months. All textual materials and table headings are presented in English and French. The bulletin is widely distributed, and it may be obtained at $1 per copy or $10 per year (or the equivalent in local currencies outside the United States) from sales agents for United Nations publications located in about 70 countries in all parts of the world. At present (December 1957) about 5,000 copies per month are printed.

Timeliness.—Each issue of the bulletin appears within about 2 weeks after the end of the month of reference (i. e., the issue for November appears about the middle of December). There is wide variation among the countries of the world in the speed with which current statistics are made available on various subjects, and it is difficult to generalize on this point. It can be said, however, that the figures published in the bulletin are as up to date in general as figures on the same subjects in national statistical publications, because many countries report the latest figures to the Statistical Office by airmail, cable, or telephone as soon as they become available, very often before they appear in print in the countries' own publications. For purposes of illustration, indications of the timelag before publication will be given below for some of the series on particular subjects.

Comparability of the data.—International comparability of statistics is largely a matter of the coverage, concepts, definitions and methods used; it cannot be stated quantitatively or absolutely, but can be described only in terms of variations from a given pattern, and it can be appraised only in terms of the purposes for which the data are to

be used. For the data included in the Monthly Bulletin of Statistics a general pattern is described for each subject, based on established international standards and recommendations insofar as these have been developed, and a full description of the pattern is published in a supplement to the bulletin.[20] For each of the subjects covered in tables published in the bulletin, the supplement presents a statement of the general pattern, which is followed immediately by country descriptions in which deviations from the general pattern are noted. In addition, deviations which appear to be particularly significant are indicated in footnotes to the tables in which the figures appear in the bulletin itself. Similar descriptions are published in annexes to the bulletin when new series are introduced which are not covered by the supplement, or when changes are made which affect the descriptions previously published. By reference to these descriptions the user of data appearing in the bulletin on any subject from any country is made aware of limitations on coverage, differences in concepts, definitions and methods used, and the like, and is enabled to appraise the data in the light of the kind and degree of comparability essential for his purposes.

Other international statistical agencies likewise publish more or less detailed descriptions and explanatory notes which serve as a basis for evaluation and appraisal of the comparability of the data included in their statistical publications. In some cases such material is included in the same publications in which the tables are presented; in others it is published separately, as in the supplement to the Monthly Bulletin of Statistics or the OEEC volume, Definitions and Methods, previously cited. In all cases reference is made in the publications in which the data are presented to the existence and location of descriptive or explanatory notes and similar materials.

Special articles.—The special articles featured in most issues of the monthly bulletin present analyses and tabulations of data on subjects of particular interest that are not published elsewhere. The March 1956 issue, for example, included a special article on The Utilization of the World Fleet in Moving Cargo in External Trade, presenting data for selected prewar and postwar years on the size, rated speed, time spent at sea, freight rates, costs, and other aspects of the operation of the world's merchant shipping vessels; and the December 1956 issue, published shortly after the start of the Suez Canal crisis, featured an analysis of The Importance of the Suez Canal in World Trade. Special articles in other recent issues have dealt with such subjects as growth of world steel production, geographic and sex distribution of the working population of the world, and world energy production, 1929–56.

Selected series of world statistics.—A tabulation of selected series of world statistics is presented as a regular feature of the Monthly Bulletin of Statistics. Annual totals for each of the last 5 years are given for more than 60 series, and quarterly figures for each of the last 6 calendar quarters are shown in addition for about half of these. The series generally relate to the world as a whole, excluding the U. S. S. R. and in some cases other parts of Eastern Europe and China mainland. In the list given below, showing series regularly presented, subjects on which estimates for the U. S. S. R. are included are

[20] United Nations Statistical Office. Supplement to the Monthly Bulletin of Statistics: Definitions and Explanatory Notes (third issue, New York, 1954). The English language edition contains 196 pages.

marked by an asterisk (*). Unless otherwise indicated, for series designated as "annual" in the following list, figures are given in the most recent issue of the Monthly Bulletin of Statistics (October 1957) for each year from 1952 through 1956; and, for quarterly series, figures are also given for each of the 4 calendar quarters in 1956 and the first 2 quarters of 1957:

SELECTED SERIES OF WORLD STATISTICS PRESENTED IN THE MONTHLY BULLETIN OF STATISTICS

*Total population (annual estimates).

Indexes of agricultural production: "food products" and "all commodities" (annual).

Total production, in units of quantity, of important agricultural and forest products, including wheat, corn, rice, meat, milk, cotton, wool, tobacco, and rubber (annual; also quarterly for roundwood).

Indexes of industrial production: "total," "mining," and "manufacturing" (quarterly).

Production, in units of quantity, of important materials and manufactured goods, including quarterly series on coal, crude petroleum, pig iron and ferroalloys, steel, copper, zinc, lead, tin, aluminum, cement, electricity, merchant vessels, and motor vehicles; and annual series on cotton spinning spindles, rayon and acetate,* sugar, lumber,* woodpulp, newsprint, nitrogenous fertilizers, and fats and oils (figures for 1952–55 only for the last five named).

*Railway freight traffic (net ton kilometers) (annual, 1952–55).

Motor vehicles in use (passenger and commercial separately) (annual, 1952–55).

*International seaborne shipping (total goods loaded, tanker cargo, and dry cargo separately) (annual, 1952–55).

*Merchant shipping: Fleets, in gross tons (annual, 1952–55).

External trade: Quarterly series on value of imports; value of exports; quantum and unit value indexes of imports and of exports of all commodities and of manufactured goods (through first quarter of 1957 only for all except index of unit value of exports of manufactured goods, for which second quarter of 1957 is given); and quarterly price indexes for primary commodities (total, food products, nonfood products of agricultural origin, and minerals).

Finance: Gold production (annual); gold and foreign exchange holdings of central banks and treasuries (quarterly through last quarter of 1956); gold and foreign exchange holding of the International Monetary Fund, Bank for International Settlements, and European Payments Union (quarterly through first quarter of 1957).

Many additional series of world statistics are presented in other current statistical bulletins and statistical yearbooks published by international agencies. A few examples will serve to illustrate the range and variety of subjects covered:

1. The United Nations Demographic Yearbook (eighth issue: 1956; New York, 1956) includes a chapter on "The World Demographic Situation" with world data on such subjects as age distribution of the enumerated population and expected and registered births and deaths per year. The volume also contains tables showing area, density, and size of the population, by sex, for each country of the world (latest census and midyear estimates for 1953 and 1955); and area, density and estimated population for the world, by continents and regions (1920, 1930, 1940, 1950, and 1955). Each issue of the Demographic Yearbook features tables on a particular demographic subject, in accordance with a regular plan for rotation of subjects over a period of years. The 1956 Yearbook, for example, features ethnic and economic characteristics as a special topic.

2. The FAO Monthly Bulletin of Agricultural Economics and Statistics, Yearbook of Food and Agricultural Statistics (published in two volumes, as follows: I—Production and II—Trade), Fisheries Bulletin (quarterly), Yearbook of Fisheries Statistics, and Yearbook of Forest Products Statistics all include world totals in many of the tables, showing figures on such subject as area, yield and production of major crops, livestock population, and production, consumption and world trade for a large number of food, fisheries, and forest products and other agricultural commodities.

3. The United Nations Statistical Yearbook (eighth issue: 1956; New York, 1956) includes numerous world series on the same subjects as those in the Monthly Bulletin of Statistics, listed above, showing figures in greater detail and for a larger number of years, countries and subjects. In general, the Statistical Yearbook includes total world figures for all subjects it covers for which data are available on a world basis from its own compilations and those of the specialized agencies, including a wide range of series on production of specific commodities.

4. The biennial UNESCO publication, Basic Facts and Figures: International Statistics Relating to Education, Culture and Mass Communication (Paris, 1956), includes world series on illiteracy, primary and secondary education, radio and television, and other subjects.

5. The Digest of Statistics published by ICAO; the IMF monthly International Financial Statistics, the WHO Annual Epidemiological and Vital Statistics; the UPU Statistique Annuaire Postale; ITU General Telegraph Statistics, General Telephone Statistics, and General Radiocommunication Statistics; and many of the statistical yearbooks and current publications of other international organizations include total world figures on a wide range of subjects.

Subjects covered in regular tables

Population and vital statistics.—The first section in the regular tables carried in the Monthly Bulletin of Statistics is devoted to demographic data. Annual estimates of total population for a 20-year period (1937–56 in the October 1957 issue of the bulletin) for practically all countries and territories (the current issue of the bulletin gives 1956 estimates for more than 100 countries and territories and 1955 estimates for 11 others). Tables in this section also include monthly and annual series on crude birth and death rates, marriage rates, and infant mortality rates, some of which appear in every monthly issue and others less frequently.

The Statistical Office of the United Nations also publishes quarterly Population and Vital Statistics Reports containing more detailed tables on these subjects. The most recent issue (Statistical Papers, series A, vol. 9, No. 4, October 1957) presents for each of some 223 geographic areas of the world the results of the latest census of population, the latest official estimates, and the most recent information available on the size of the population as of midyear 1956. In addition, the most recent statistics of live births, deaths, and infant deaths are shown for about half the world's population. For most series information is included on the quality of the basic data, the type of estimate and methods of adjustment used.

Much more detailed demographic data are published in the Demographic Yearbook, including figures on distribution of the population by sex, age, industry and occupation, mortality and natality, marriages and divorces, and expectation of life, by sex, at specified ages. The Demographic Yearbook also constitutes the most comprehensive source of information on the quality and reliability of the data on demographic subjects included in international statistical publications.

Manpower.—Regular bulletin tables on this subject include index numbers of employment (excluding agriculture), employment in manufacturing, weekly or monthly actual hours worked in manufacturing, and number and percentage unemployed. Geographic coverage of the tables is much less extensive than in the preceding section: series on employment in manufacturing and on unemployment are shown for about 30 countries. The latest figures typically refer to a date about 4 or 5 months prior to the date of publication (for example, in the October 1957 issue the latest figures given are for June or July 1957 in about 60 percent of the individual country series).

All the series on manpower included in the bulletin are compiled by ILO, which makes them available for publication in the bulletin simultaneously with publication in its monthly International Labor Review. In the latter publication and in its Year Book of Labor Statistics, ILO publishes a large number of current and annual series on manpower and related subjects, including employment by major divisions of economic activity, unemployment by industrial or occupational groups, labor disputes, industrial injuries, and international migration. The most important of the annual series on manpower subjects are also published in the U. N. Statistical Yearbook.

Current manpower data for particular industries in countries of Europe, Asia, and the Far East are published in statistical bulletins of ECE and ECAFE, including the Economic Bulletin for Asia and the Far East, Economic Bulletin for Europe, Quarterly Bulletin of Coal Statistics for Europe, Quarterly Bulletin of Housing and Building Statistics for Europe, Quarterly Bulletin of European Inland Transport Statistics, and Quarterly Bulletin of Steel Statistics for Europe.

Agriculture, forestry, and fisheries.—Detailed monthly, quarterly, and annual statistical series on agriculture, forestry, and fisheries production and related subjects are compiled by FAO and published in its Monthly Bulletin of Agricultural Economics and Statistics and its several statistical yearbooks referred to previously. These publications present data, by country, on all major crops, livestock and poultry, and other agricultural commodities, forest products, fishing and whaling. These series include figures on area, yield, production, consumption, imports and exports, prices, and other subjects.

Reference has already been made to the series of world statistics on production of agricultural and forest products presented in the U. N. Monthly Bulletin. The only table on these subjects regularly presented in the bulletin with figures for individual countries is one showing current data on production of natural rubber in all countries producing it in any significant quantity. Data for this table are obtained principally from the International Rubber Study Group, which also publishes the same and other more detailed statistics in its monthly Rubber Statistical Bulletin. Many of the important annual series on agricultural and related subjects compiled by FAO are also published in the United Nations Statistical Yearbook.

Industrial production.—A table showing current index numbers of industrial production for more than 30 countries is regularly published in the monthly bulletin. For most countries the series include a general production index and separate indexes for such industries as mining, manufacturing, and gas and electricity. The series for individual countries are reasonably complete, with relatively few gaps in the time periods shown; and are fairly current, with an average time lag of about 4 months between date of reference and date of publication. Index numbers of gross output of industry in the U. S. S. R. also are published from time to time (last published in March 1957).

Mining.—Regular bulletin tables include data, by country, on production and stocks of coal and production of lignite, natural gas, crude petroleum, iron ore, and tin concentrates. The tables generally cover the major producing countries, including the U. S. S. R. in most

cases. There is a wide variation among countries in the timeliness of the figures, the lag before publication ranging from 2 or 3 to 10 or more months.

Reference should be made to the United Nations Statistical Yearbook for additional series on production of a wide range of other mining and quarrying products, including more than 20 different metallic and nonmetallic ores and minerals. Manganese, copper, lead, zinc, bauxite, mercury, gold, silver, asbestos, salt, sulfur, and roofing slates are among the products covered. The Statistical Yearbook also presents selected series on the structure of mining and quarrying in various countries, including number of establishments, power installed, wages and employment, and gross value of production. Publications of ECAFE, ECE, ECLA, IMF, FAO, and the International Tin Study Group also present additional series, many of which include data not available in other international publications.

Manufacturing.—Eighteen of the monthly bulletin tables, or nearly a third of all the regularly published tables, are devoted to series on production of important manufacturing industries. Series are included on production of the following: meat, milk, butter, cheese, and wheat flour; cotton yarn, woven cotton fabrics, wool yarn, and rayon and acetate; cement and building bricks; pig iron and ferroalloys; crude steel; copper, zinc, lead, tin, and aluminum smelting; and motor vehicles. Quantity rather than value figures are given in all cases. Coverage of individual countries producing these commodities is not complete, but the data represent a very substantial proportion of total world output, including the U. S. S. R. and other countries of Eastern Europe in most cases. Generally the figures are fairly current, with a time lag of less than 6 months for a majority of the individual series.

The Statistical Yearbook of the United Nations also gives considerable emphasis to data on manufacturing; more than a fourth of all its tables are devoted to this subject. In general the tables in the yearbook cover a longer time span than those in the bulletin (typically a 20-year period beginning in the 1930's), include figures for a larger number of countries, and provide data for more commodities. Whereas the monthly bulletin includes 4 tables on textiles and apparel, for example, the yearbook has 11; and the whole field of food, beverage, and tobacco manufactures is represented in the monthly bulletin by only 5 tables, as compared with a dozen in the yearbook (and more than twice as many in the FAO yearbooks).

The number, variety, and scope of the statistical series on manufacturing included in other international statistical publications can only be suggested here. Virtually every international statistical publication that has been mentioned in this memorandum contains one or more tables devoted to this subject. Data on manufacturing output, of course, are basic to nearly every field of international activity, social and cultural [21] as well as economic; and measures of production of particular manufacturing industries, to the extent that they are available, are likely to be of sufficient interest and importance

[21] It may be noted, for example, that statistics of book and film production are included in the UNESCO publication, Basic Facts and Figures, previously cited.

to one or more of the international agencies to justify their compilation and publication.[22]

Construction.—Current monthly or quarterly and annual data on new building construction in some 44 countries are shown regularly in the monthly bulletin. Series for most countries show number of new dwelling units as well as volume of nonresidential or total construction. Additional series are published in the U. N. Statistical Yearbook; and more detailed statistics for European countries are presented in the ECE Quarterly Bulletin of Housing and Building Statistics for Europe.

Electricity and gas.—Data on production of electric power constitute an important and widely used economic indicator, and the table on this subject carried regularly in the bulletin presents recent figures for more than 60 countries, including the U. S. S. R. and other countries of Eastern Europe. Current data on production of manufactured gas are presented in another table which includes figures for about half of these countries. More detailed data are published in the U. N. Statistical Yearbook, which also includes series on electric energy capacity installed and on total estimated consumption of commercial sources of energy (expressed in terms of coal equivalents). Both ECAFE and ECE also publish current statistical bulletins devoted exclusively to this subject; and data for Latin American countries are published in the ECLA Economic Survey.

Transport.—Bulletin tables on this subject include fairly up-to-date series for substantial numbers of countries on net ton-kilometers and tonnage carried in railway freight, goods loaded and unloaded in international seaborne shipping, and passenger kilometers and net cargo ton-kilometers in civil aviation traffic. The U. N. Statistical Yearbook presents similar series for a larger number of countries, as well as other series on such subjects as railway rolling stocks, railway passenger traffic, merchant shipping fleets, and international tourist travel.

The ICAO Digest of Statistics; the ECAFE Economic Bulletin and Railway Statistics Bulletin; and the ECE Economic Bulletin, Quarterly Bulletin of European Inland Transport Statistics, and Annual Bulletin of Transport Statistics include many more detailed statistical series on particular aspects of transport.

Reference should also be made to tables on communications, including traffic data, that are published by a number of the international agencies. These include series on postal traffic, compiled by UPU and published in its Annuaire Statistique Postale, Statistique Complète des Services Postaux (triennial), Statistique Réduite des Services Postaux (published in intermediate years between issues of the triennial publication), and Statistique des Expéditions dans le Service Postal International (triennial, with data on letters dispatched by countries of origin and destination); and series on telegraph, telephone, and radio communications made available by ITU in its periodic publications, General Telegraph Statistics, General Telephone Statistics, and General Radiocommunications Statistics. The U. N.

[22] The interest of international organizations in the subject, of course, reflects the importance which countries attach to it, and a measure of the latter is provided by the large number of industrial censuses and similar statistical inquiries that have been conducted in recent years. In a study undertaken by the Statistical Office of the United Nations recently (Recent Basic Industrial Enquiries, Doc. No. E/CN.3/L.40/Add.1), it was found that more than 60 countries had undertaken 1 or more basic industrial inquiries since 1952, not counting current surveys of manufactures and other industrial activity carried on by many countries.

Monthly Bulletin does not include tables on communications, but series on selected communications subjects compiled by UPU, ITU, and the American Telephone & Telegraph Co. are published in the U. N. Statistical Yearbook. UNESCO also makes available, in its biennial Facts and Figures, data on radio broadcasting and television receiving sets licensed or in use.

Internal trade.—Current index numbers of the value of retail and wholesale trade published in the monthly bulletin cover only a relatively small number of countries but include more recent figures than are available for most other general economic indicators.

External trade.—Prompt availability of reliable and up-to-date statistics of the volume and character of world trade, comprehensive in coverage and conforming to agreed standards of international comparability, has long been a major objective of international organizations. The record of achievement in pursuit of this objective is reflected in the detailed tables on this subject included in the Monthly Bulletin of Statistics and other monthly, quarterly, and annual publications of the United Nations, specialized agencies, and other international organizations.

Even a mere list of the titles of international publications containing statistics of external trade would require more space than would be justified by the purposes of this memorandum. Accordingly, all that is attempted here is to suggest, in the following bibliographic notes, a number of convenient sources which may serve as a guide to the publications themselves and to information about the methods of compilation used and the quality, coverage, and comparability of the data.

1. Reference should be made first to the 1955 statement submitted by Rice (loc. cit., pp. 39–40), which includes a brief review of the history of international efforts to improve the availability and comparability of international trade statistics.

2. A comprehensive list of the trade statistics series compiled by international organizations is included in the List of Statistical Series Collected by International Organizations, to which reference has already been made (United Nations Statistical Office, Statistical Papers, series M., No. 11, rev. 1, February 1955, pp. 40–61). For each series listed the frequency is given, the organization which compiles it is named, and the publications in which the data are made available are identified.

3. An up-to-date list of periodic publications in which the external trade statistics compiled by international organizations are made available, with brief descriptions of the kinds of data included in each, appears in a recent issue of the U. N. publication Direction of International Trade (Statistical Papers, series T, vol. 8, No. 7). The same list is printed also in vol. 1 of the U. N. Yearbook of International Trade Statistics, 1956 (New York, 1957).

4. A brief review of statistics of international trade written primarily from the point of view of the business user is presented in the chapter on International Statistics, by P. J. Loftus, in Government Statistics for Business Use, edited by Philip M. Hauser and William R. Leonard (second edition, New York, John Wiley & Sons, Inc., 1956, pp. 378–404).

5. Detailed information on the basic characteristics of available statistics of international trade and expert appraisal of the data can be found in International Trade Statistics, edited by R. G. D. Allen and J. Edward Ely (New York, John Wiley & Sons, Inc., 1953, 448 pages). This volume includes chapters by internationally recognized experts on methods of compilation used, coverage of the data, commodity classification, valuation, exchange conversion, country classification, and publication and use of national statistics of external trade. It also includes a section on Important Derived Uses of the Statistics, with chapters on merchandise trade in the balance of payments, index numbers of volume and price, and international comparisons and standardization; and descriptions and appraisals of the statistics of individual countries and regions.

6. The supplement to the U. N. Monthly Bulletin of Statistics, cited previously, includes general descriptions of the methods of compilation, coverage, and other characteristics of the external trade series published in the bulletin; and detailed information on the series for individual countries, including definitions of the customs areas, systems followed, coverage, and methods of valuation (sec. XI, External Trade, pp. 82–118).

7. The yearbooks and other periodic statistical publications of specialized agencies, which present more detailed statistics of international trade in particular commodities than are found in the compilations of general statistics, also include descriptive text and other information about the data. The tables on trade in the FAO yearbooks, for example, are supplemented by detailed explanatory notes, including detailed information on statistics of trade in particular commodities and on series for individual countries.

8. Finally, reference should be made to intensive studies of discrepancies between import and export figures of particular countries, which are being promoted by the Conference of European Statisticians and the Inter American Statistical Institute. By special arrangement with pairs of countries having important mutual trade relationships, joint studies are planned of the statistical treatment of goods moving between the countries to determine the reasons for discrepancies in the trade accounts. One such study has already been completed, and the results were presented in a joint report by the Federal Statistical Office of the Federal Republic of Germany and the Central Bureau of Statistics of the Netherlands, submitted to the Fifth Plenary Session of the Conference of European Statisticians (Conf. Eur. Stats/70, June 11, 1957). Reports on such studies undertaken by other pairs of countries may be included in the documentation for later sessions of the Conference. Steps taken to arrange for similar studies by pairs of countries in the Western Hemisphere, and reports on results achieved, will be covered in documentation for sessions of COINS and will also be noted in the pages of the IASI quarterly journal, Estadistica.

Wages and prices.—Series for nearly 30 countries, showing the most recent figures available on actual hourly, daily, weekly, or monthly earnings in manufacturing, are published regularly in the monthly bulletin. The data are compiled by ILO and are published in the International Labor Review and the Yearbook of Labor Statistics with many other series on wages and labor income, including annual figures for countries and particular industries for which data are not available at more frequent intervals.

Data on wages or earnings in major industries, including construction and agriculture as well as manufacturing, are also compiled by ECAFE and ECE and published in their current statistical bulletins. The ICAO Digest of Statistics includes data on wages of airline personnel.

Index numbers of the cost of living are made available by ILO for nearly 90 different countries and localities. In the monthly bulletin table in which these series are presented, separate figures are given for food and for all items. The current data on this subject are more nearly up to date, in general, than data on other subjects; in the October 1957 issue of the monthly bulletin, for example, July or August 1957 figures are given for more than half the series included.

Current wholesale price indexes and data on actual levels of wholesale prices of particular commodities are generally considered valuable as sensitive indicators of economic change; and efforts to improve the adequacy and comparability of such data have received attention on the international level for many years. Some of the fruits of this effort can be seen in the tables in the Monthly Bulletin of Statistics, which include general indexes of wholesale prices for some 55 countries (with figures for July, August, or September 1957 for all but 21 of these countries in the October 1957 issue). Separate indexes are also presented for many countries for such commodity groups as raw

materials, finished goods, domestic and imported goods, and producers' and consumers' goods. In addition to the indexes published every month, the bulletin presents indexes of wholesale prices of building materials, farm products, and textile products on a rotating schedule (each four times a year). Actual prices of about 50 selected and precisely defined commodities in the wholesale markets of particular countries are also reported regularly. Wholesale commodity price series are also compiled by FAO, which publishes data on a large number of other commodities, as well as several series of wholesale price indexes. IMF also compiles wholesale price series for a number of commodities, figures for which are published monthly in its International Financial Statistics. Additional wholesale price data for European countries are published by ECE and OEEC.

National income.—The latest available estimates of national income for more than 60 countries are published regularly in the monthly bulletin. Separate tables on industrial origin of net domestic product, private consumption expenditure, capital formation, distribution of national income, and expenditure on gross domestic product are also published once a year (in the March, February, January, November, and December issues of the bulletin, respectively). The data available on this subject are discussed in some detail in part II of this memorandum.

Finance.—Detailed statistics of banking and finance are compiled regularly by IMF and made available in a large number of monthly and annual series published in International Financial Statistics (monthly) and the Balance of Payments Yearbook. The series include detailed balance of payments accounts, public finance, official holdings of gold, foreign exchange and other foreign assets, bank assets, domestic credit, currency and deposits, exchange rates, and money and capital market conditions. The series generally are fairly comprehensive in coverage, and the time lag between date of publication and date of reference of the latest figures given is relatively short (less than 3 months for most of the monthly series, and only 1 month for some). The tables are supplemented by detailed descriptive and explanatory notes.

Six regular tables in the U. N. Monthly Bulletin of Statistics present data compiled by IMF on exchange rates, money supply, official holdings of gold and foreign exchange, money market rates, yields of long-term Government bonds, and indexes of market prices of industrial shares.

Social statistics.—Except for tables on demographic subjects, the monthly bulletin is devoted entirely to economic statistics. Specialized agencies compile and publish data on a variety of social subjects, including social security and family living conditions (ILO), public health and morbidity (WHO), and education and culture (UNESCO).

III. IMPROVEMENT OF NATIONAL STATISTICS

The review of international statistical activities and publications in the preceding sections of this memorandum has touched only indirectly upon basic questions of the adequacy, quality, and reliability of the original data supplied by individual countries—the foundation on which the whole structure of the international statistical system is based, and the continuing supply of basic information

essential to its operation. It has been pointed out, however, that meaningful answers to such questions can only be formulated in terms of very specific uses of particular bodies of data. It can be determined whether a particular series of population estimates is based on data obtained from a continuous registration system, projections of census data, sample surveys, or conjectural exercises; and references have been cited in the preceding section, wherever appropriate, to authoritative sources for such determinations. No such general indication of quality, however, will serve the needs of the demographer who wishes to use the data in a comparative analysis of rates of population growth.

For most general purposes of economic analysis, particularly on the international level, the availability of statistical information is a more crucial question than the quality or precision of the data. Even rough estimates will disclose the general magnitudes of differences among countries in levels of wages, production, trade and other characteristics of economic activity; and may also provide an adequate basis for determination of trends, particularly long-term trends, in economic activity within and among countries. For such reasons it has often been said that any statistics at all are better than none, unless data are presented with deliberate intent to mislead or conceal. For such reasons also, the major gaps that exist in the national statistical data available on important subjects are of greater concern to the international organizations generally than are needed refinements or improvements in quality of particular series, although both are important and both are objectives in programs for improvement of national statistics.

The concluding section of the 1955 paper submitted by Rice [23] listed a number of important "needs for the future," and the need for "the further development of national statistics in underdeveloped countries" was noted as the first and "most conspicuous" among these needs. This need is still great, although notable progress has been made during the last 2 years. Statistical training programs have been strengthened and expanded; direct technical assistance and provision of consultant and advisory services in statistics have been continued and extended to more countries; and additional statistical aids have been made available in the form of handbooks and manuals, textbooks, and other teaching materials, dictionaries and glossaries, indexes to standards and classifications, bibliographic tools, and other guides to sound statistical practice and methodology in various fields. No attempt is made here to appraise in specific terms the progress that has been made or to describe the work done since 1955 under programs for improvement of national statistics, because an authoritative review is now in preparation in the Statistical Office of the United Nations and will be issued in the near future as part of the documentation for the 10th session of the U. N. Statistical Commission.[24]

[23] Loc. cit., pp. 47–49.

[24] General Survey of Developments in International Statistics (Doc. No. E/CN.3/249). The survey contains a description of the statistical activities of the United Nations, specialized agencies and other international organizations and describes the developments in economic and social statistics which have taken place since the review (E/CN.3/196) which was submitted to the Commission at its ninth session. A description is also given of the activities in technical assistance in statistical fields during the period. See also documentation on this subject for the V session of COINS, including a review of Technical Assistance Needs of the American Nations for Developing the Program of the 1960 Census of America (IASI Doc. No. 3702a), and a comprehensive list of Latin Americans Receiving Some Statistical Training in the United States from about 1942 to September 10, 1957 (IASI Doc. No. 2751 Eng.).

Another major need of international statistics, cited by Rice in 1955 as "happily in process of some degree of realization," [25] is for concerted effort by international organizations and national statistical services in the 1960 world census program. Very substantial progress has been made in advancing this program, and the "degree of realization" anticipated in 1955 can now be substantiated in large measure in action taken by international organizations and national agencies in all parts of the world.[26] It can now be stated with confidence that this program will provide comprehensive measures of the size and principal demographic characteristics of the populations of most of the countries and territories of the world; equally comprehensive data on the world's agriculture; and, in a large number of countries, basic statistical information on subjects covered by comprehensive censuses of housing, manufacturing, mining, and other industrial and economic activity.

Substantial progress has also been made since 1955, as will be evident from part II of this memorandum, in "the furtherance of work in all countries on the estimation of national income and gross national product and the development of systems of national accounts," to the need for which Rice called attention in his 1955 statement.[27]

Work has also gone forward on the "further development and adoption of standard concepts, definitions, and practices," listed by Rice as of major importance among future needs—particularly in the fields of international trade, public finance and distribution statistics.[28] Reference has already been made to steps taken since 1955 in the development of international standards. Efforts to promote wider adoption of international statistical standards are not described, as such, in this review. They constitute a major objective of programs for improvement of national statistics, which are reviewed briefly in the following paragraphs.

The distribution of responsibility for activities and programs designed to contribute to improvement of national statistics is generally similar to the pattern developed for other statistical functions. Each organ of the United Nations, each of the specialized agencies, and each of the other international organizations concerned with the compilation or analysis of statistical data also contributes in its subject field or area of responsibility to improvement of national statistics. Much of the work on improvement of national statistics, particularly the statistical training activities and the provision of direct technical assistance to national statistical services, is financed and administered as part of the United Nations Expanded Programme of Technical Assistance. Specific projects under this program are administered by individual participating agencies (i. e., U. N.. ILO, FAO, UNESCO, ICAO, WHO, WMO, and ITU), with general policy guidance provided by the Technical Assistance Board. Full reports on the program, including details on specific projects, fellowships granted, and

[25] Rice, loc. cit., p. 48.

[26] See the Report on the V session of COINS, previously cited; Economic Commission for Asia and the Far East, Report * * * of the Fourth Regional Conference of Statisticians (E/CN.11/433, April 10, 1956), and Report of the Conference of Asian Statisticians (first session) (E/CN.11/456, May 27, 1957); Conference of European Statisticians, "Report of the Fifth Plenary Session" (Conf. Eur. Stats/80, July 10, 1957), and reports of its Working Group on Censuses of Population and Housing and Working Group on Agricultural Censuses and Surveys referred to therein; and the Progress Report on the World Population Census Program (E/CN.3/237) to be submitted to the Statistical Commission at its 10th session.

[27] Loc. cit., pp. 48–49.

[28] Loc. cit., p. 49.

other activities, are submitted annually by the Board to the Economic and Social Council at its summer sessions.[29]

Technical assistance in statistics is also provided under the regular programs of the United Nations Statistical Office, the several specialized agencies, and regional and nongovernmental agencies and organizations. These activities are reviewed briefly in the regular reports submitted to the Statistical Commission on developments in international statistics, which have been cited previously. More detailed information on projects and activities of particular agencies and organizations is presented in publications issued by them. The following bibliographic notes will serve to illustrate the scope and variety of material on technical assistance in statistics available in such publications:

1. *U. N. Statistical Office.*—The series of "Statistical Papers" issued by the Statistical Office include detailed reports on training centers held in various regions on such subjects as statistical organization, biostatistics, industrial statistics, vital and health statistics, and civil registration (Statistical Papers, Series M). The Statistical Office has also published, in Series M, a number of manuals and guides to international statistical standards, including the International Standard Industrial Classification of All Economic Activities (No. 4), International Standard Definitions for Transport Statistics (No. 8), Commodity Indexes for the Standard International Trade Classification (No. 10), International Standards in Base Industrial Statistics (No. 17), Principles for a Vital Statistics System (No. 19), International Migration Statistics (No. 20), and World Weights and Measures (No. 21). Another series ("Studies in Methods," Series F) includes basic handbooks on Index Numbers of Industrial Production (No. 1), Concepts and Definitions of Capital Formation (No. 3), Industrial Censuses and Related Enquiries (No. 4), Population Census Methods (No. 5), Statistical Organization (No. 6), and Methods of National Income Estimation (No. 8). A series of Statistical Notes (Statistical Papers, Series B, Nos. 1–22), issued from time to time by the Statistical Office, present news notes on current developments in statistics, including specific "Notes on Technical Assistance in Statistics" which report individual consulting assignments, notes on publications, announcements of statistical meetings, seminars, training centers and other events, news of national statistical activities of general interest, etc.

2. *ILO.*—The International Labor Review (monthly), the general reports on labor statistics prepared for the International Conference of Labor Statisticians, and various other ILO publications and documents include information on technical assistance projects and other ILO activities for improvement of national statistics. Reports on special studies and surveys and reports of meetings of expert groups on particular subjects also may include more detailed accounts of such activities than are published elsewhere. Reference may be made, for example, to a survey of Chief Characteristics of Recent Family Living Studies in various countries (preliminary edition, Geneva, 1955), and to the Report of a Meeting of Experts on Labor and Social Security Statistics, held in Geneva October 1–10, 1956 (ILO Doc. No. SSS–18).

3. *FAO.*—The annual reports on The Work of FAO, previously cited, cover statistical work in all FAO fields, and include references to other sources of information. FAO has given particular emphasis in its work on improvement of agricultural statistics to development and application of sampling methods, and has made valuable contributions in this field. For example, it has prepared working papers and other materials on sampling methods and applications in agricultural censuses and current agricultural statistics programs for a number of regional statistical seminars and conferences; and is preparing a comprehensive manual on the subject, a draft of part I of which was issued recently (with the FAO document symbol FAO/57/6/3816).

4. *UNESCO.*—The monthly UNESCO Chronicle and other publications previously cited should be mentioned as sources of information about its activities and programs for improvement of statistics of education and other social and cultural subjects. UNESCO contributes in a number of ways to promotion of statistical education, and particular reference should be made in this connection

[29] The most recent annual report is that for 1956, issued as U. N. Doc. No. E/2965 (also printed as Supplement No. 5 to the Official Records of the Economic and Social Council, 24th session).

to its annual publication, Study Abroad, which is a comprehensive guide to fellowships, scholarships and other opportunities available for foreign study and educational exchange arrangements in various countries and subject fields (including statistics). In addition to lists of fellowships, Study Abroad includes statistical data on foreign students, and a directory of organizations offering advisory services and practical assistance for study abroad.

5. *WHO.*—The annual reports of the Director General on The Work of WHO, the WHO Bulletin, and the WHO Chronicle cover the statistical work of the organization, including activities for improvement of national statistics. WHO sponsors regional seminars, meetings of study groups and similar activities in vital and health statistics fields, by way of illustration of which reference may be made to the WHO–CCTA Report of the African Seminar on Vital and Health Statistics, held in Brazzaville, November 19–24, 1956 (CCTA/WHO/STATS.SEM/35/Rev. 1; also issued under the document symbol WHO/HS/85); and to the Report of the Study Group on the Measurement of Levels of Health, which met in Geneva, October 24–28, 1955 (WHO/PHA/25).

6. *Other specialized agencies.*—Publications of other specialized agencies which have been previously cited also include information on statistical studies and projects for improvement of national statistics in particular fields. Specific reference should be made, here, however, to the important work of the IMF in the development of standards and methods, provision of direct technical assistance to countries, and maintenance of training facilities and programs in fields of statistics with which it is concerned. An outstanding example of its work is the Balance of Payments Manual, which is used as a guide by IMF member countries in reporting balance of payments data and which has contributed significantly to systematizing the methodology of balance of payments accounts.

7. *IASI.*—As previously noted, Estadística, the official quarterly journal of IASI, contains information on its continuing activities and special projects, including seminars and training programs, translations of basic statistical texts, research studies, and the like. Reports of sessions of the IASI Committee on Improvement of National Statistics (COINS), which are issued as supplements to Estadística, are particularly relevant in this connection. It should also be mentioned here that IASI collaborates closely with the U. N. Statistical Office in technical assistance projects and other statistical activities in the Western Hemisphere. As one example of such collaboration, it may be mentioned that IASI prepared the Spanish-language coding manual for application of the Standard International Trade Classification—Manuel de Codificacion para la Aplicacion de la Clasificacion Uniforme para el Comercio Internacional (Washington, Pan American Union, 1953)—and a companion volume which provides an alphabetical index in Spanish to the SITC—Indice Alfabetico * * * (Washington, Pan American Union, 1957). Reference should also be made to the Annual Report of the Secretary General of the Organization of American States, the most recent of which, covering the fiscal year 1956–57, was submitted to the OAS Council in December 1957 (Washington, Pan American Union, 1957), for brief accounts of IASI activities, including particularly its functions as the Division of Statistics of the Pan American Union.

8. *Other regional bodies.*—Selected references have been given to publications of OEEC elsewhere in this memorandum, but specific reference should be made here to some of the reports of OEEC Technical Assistance Missions, not previously mentioned—viz., Industrial Censuses in Western Europe (1951), Measurement of Productivity: Methods Used by the Bureau of Labor Statistics in the USA (1951), Labor Force Statistics: Sample Survey Methods (1954), and Industrial Censuses in the United States (1955). The WHO–CCTA African Seminar on Vital and Health Statistics has likewise already been mentioned, but for a full account of the work of the Commission for Technical Cooperation in Africa South of the Sahara, reference should be made to Inter-African Scientific and Technical Cooperation, 1948–1955 (London, CCTA, 294 pp.). Mention should also be made of the work of the Caribbean Commission, an example of which is provided by its Report of the Conference on the Demographic Problems of the Area Served by the Caribbean Commission (held July 25–August 2, 1957; the report includes a list of documentation for the conference).

9. *Other agencies and organizations.*—Publications of ISI and other organizations and agencies mentioned in section II of this memorandum also contain information on activities and developments that have important bearing on efforts to improve national statistics. Citations have already been given to selected publications of these organizations and they need not be repeated here. Particular attention should be called again here, however, to the statistical education program of ISI

and the sources of information about the program cited above, as this is an outstanding example of the important contributions made by nongovernmental organizations to the development and improvement of statistics. Finally, reference should be made to the important work of the International Chamber of Commerce and its Committee on Distribution Statistics, which has made valuable contributions to the development of standards and methods for statistics of wholesale and retail trade and the improvement of national statistics on this subject (see, for example, its Brochure 131, Distribution Statistics, and Document No. 232/72, How to Determine Operating Costs in Distribution).

It has been possible in this brief review to present only a few highlights of the extensive work that is being done by international statistical agencies and organizations to effect urgently needed improvements in the statistics available from countries of the world generally on vital subjects of international concern. By reference to the many other sources of information indicated, however, it is possible to develop an adequate picture, in considerable detail, of the organization and functions of the whole international statistical system, and the ways in which this system is operating to improve and make more widely available the kinds of statistical information needed for effective international cooperation.

PART II

INTERNATIONAL STATISTICS ON NATIONAL INCOME AND EXPENDITURE ACCOUNTS

The plan of this memorandum is first to explain briefly the broad essentials of national income accounts. This is followed by an analysis of the kinds of national income and expenditure data now available for countries throughout the world as represented by statistics collected by the United Nations. The problem of comparability and relative evaluation of quality are then broadly examined and some general conclusions drawn.

I. NATURE OF ACCOUNTS

National income accounts provide a systematic means of recording the production and distribution of goods and services produced in a given country during a given period. There follows a brief outline of the nature of the accounts generally used for current production and its use.[1] Essentially the accounting system requires interrelated accounts to meet two purposes:

(1) Production: This requires accounting for the two facets of production (*a*) the output of goods and services, and (*b*) the costs including profits of producing the output.

(2) Uses of production: This requires accounting for (*a*) the expense and income activities for the household and general government sectors, and (*b*) accounting for domestic capital formation and external transactions.

A nation's production comprises (*a*) the unduplicated output of goods and services by use, and (*b*) the costs (including profits) associated with this output. The total unduplicated output of goods and services consists of:

1. Private consumption expenditure (i. e., purchases by persons).
2. General government consumption expenditure (i. e., purchases by government of goods and services other than fixed assets).
3. Gross domestic fixed capital formation (i. e., purchases by business and government of new fixed assets).
4. Other gross domestic capital formation (i. e., increases in stocks of inventories).
5. Net exports of goods and services (i. e., exports less gifts to abroad, minus imports less gifts from abroad).
6. Gross domestic product (i. e., domestic output of goods and services, items 1 through 5).
7. Factor income from abroad (i. e., net wages, interest, and profits accruing to residents from abroad).
8. Gross national product (items 6 and 7).

[1] Although the national accounts of particular countries differ somewhat from each other, they follow for the most part a common pattern. This pattern is exemplified in the U. N. system of accounts which is described here only in very broad outlines. For a complete explanation of the U. N. national accounts structure see A System of National Accounts and Supporting Tables, Series F-2, United Nations, 1953.

Thus, gross domestic product represents the total unduplicated output of goods and services produced within the country and gross national product represents the total unduplicated output of goods and services accruing to residents of the country.

Associated with this output are the costs (including profits) of production which are in the nature of income to persons, business, and government. Thus the other side of production may be viewed as consisting of:

1. Compensation of employees.
2. Income from unincorporated enterprises.
3. Income from property of households.
4. Savings of corporations.
5. Direct taxes on corporations.
6. General government income from property and entrepreneurship.
7. Less interest on the public debt.
8. Less interest on consumers' debt.
9. National income (items 1 through 8).
10. Capital consumption allowances (i. e., depreciation).
11. Indirect taxes.
12. Less subsidies.
13. Total (items 9 through 12).

The above cost total (i. e., item 13 which consists of national income plus depreciation, plus indirect taxes net of subsidies) is identical in amount to the output total (i. e., gross national product).

The uses of production are basically for consumption and capital formation. In an open economy, however, imports and exports must also be taken into consideration. Accordingly, in the U. N. accounts, the uses of production are recorded in a set of separate income-expenditure type accounts for households, general government, domestic capital formation, and external transactions.

Most of the entries in the use accounts are counterparts of the previously mentioned components of national income and gross national product. In other words, the costs of production are also the income of households, general government, and a source of funds for new investment. Conversely, the output of goods and services also represents purchase costs to households, general government, and expenditures for new investment. In addition there are some transfer payments between the use accounts themselves. Households, for example, pay taxes (expenses) to government (income). Conversely, transfer payments are made by government (expense) to households (income) in the form of benefits of various kinds. Finally, the open balances in the household account (i. e., savings), general government account (i. e., surplus or deficit) and external transactions account (i. e., surplus or deficit) provide a source of funds available for domestic capital formation. A brief explanation of the four "use" accounts follows. This explanation is limited to the use of current production. Consequently, capital transfers, which are also recorded in the U. N. accounting system, are not discussed here.

The income side of the *household account* consists of compensation of employees, income from unincorporated enterprises, income from property, less interest on consumers' debt (each of these arise out of production) and transfers from general government. The expense side consists of private consumption expenditure (i. e., purchases

of output of goods and services), direct taxes, other transfers to government and a balancing item of saving (or deficit).

The *general government account* presents a consolidated statement of general government revenue and expenditure. Revenues consist of income from property and entrepreneurship, indirect taxes, direct taxes on corporations less interest on the public debt (each of these arise out of production), direct taxes on households and other transfers from households. Expenditures consist of consumption expenditure (i. e., purchases of goods and services out of production), subsidies to production, and transfers to households. The difference between revenue and expenditure totals represents saving (or deficit).

The *domestic capital formation account* consists of a consolidated statement of capital formation on one side of the account and the sources of funds on the other side. Capital formation consists of (1) all fixed domestic capital formation (i. e., expenditures for new plant and equipment) of business and general government, and (2) increases in stocks (i. e., inventory increases). The principal sources of capital formation are from capital consumption allowances (i. e., depreciation of plant and equipment) and the saving of households, business, and general government.

The *external transactions account* is a consolidated statement of current receipts from the rest of the world and current payments to the rest of the world. The difference between total receipts and payments is regarded as surplus (or deficit).

II. AVAILABILITY OF STATISTICS

The period of the 1930's and early 1940's was one of development of estimation procedures in a few countries. In the White Paper of 1941, for example, the United Kingdom published three related tables which contained many essentials of national income accounts as they are known today. The three tables covered the years 1938 and 1940 and related to estimates of national income and expenditure; estimates of personal incomes, personal expenditure and savings; and estimates of the net amount of funds available for government purposes from private sources. Each year since then, the United Kingdom has published a White Paper on the subject. In 1947 the United States began to publish regularly a set of integrated national income accounts. The initial report contained the accounts for the year 1946 and detailed tabular summaries from which accounts could be reconstructed for each of the years between 1929 and 1947.

National income accounting as practiced today throughout the world is largely a development of the postwar period. Prior to then, the available series were limited largely to national income by distributive shares (i. e., compensation of employees, income from property, etc.), with a few countries preparing estimates of gross national product by use. The use of an integrated set of accounts showing the interrelated transactions of producers, households, and government is a comparatively new development.

The postwar period has been one of reconstruction and major economic development in many countries. The need for an integrated set of statistics relating to the structure and trends of the national economy has been an important demand factor in the rapid development of national income accounting throughout the world in recent

years. Another important factor has been the aid and guidance provided by the United Nations (U. N.), the Organization for European Economic Cooperation (OEEC),[2] and some of the leading countries in the movement. The analysis in the pages following is largely one of the data made available by the U. N. in its Statistics of National Income and Expenditure, Series H, No. 10, published in January 1957, hereafter referred to as U. N. Series H–10.

U. N. Series H–10 contains data for a complete set of accounts for the following 23 countries.[3]

In Africa:
- Belgian Congo
- Mauritius
- Rhodesia

In America, North and South:
- Canada
- Ecuador
- Honduras
- Panama
- United States

In Asia:
- Burma
- Israel
- Japan
- Philippines

In Europe:
- Austria
- Belgium
- Denmark
- Ireland
- Luxembourg
- Netherlands
- Norway
- Sweden
- United Kingdom

In Oceania:
- Australia
- New Zealand

While 23 countries publish annual data for a complete set of accounts, many other countries publish important accounts or parts of accounts in the form of tables. All in all, some 64 countries (including the earlier mentioned 23) now publish annually one or more important national accounts tables. These 64 reporting countries represent about 57 percent of the total world population. Of the remaining 43 percent of the total world population about three-fourths are in countries (e. g., China mainland and U. S. S. R.) in which national accounting in one form or another is also used. Thus, countries without some kind of national accounts work probably comprise not more than 11 percent of the total world population.

The status of the development in the 64 countries is summarized by continents in table 1, below. A status summary by country is shown in table 5 at the end of this memorandum.

[2] A system of national accounts, to assist in comparing the structure of transactions in countries which are members of the Organisation for European Economic Cooperation was devised in 1949–50 by the National Accounts Research Unit of OEEC. The system was devised to facilitate comparisons between countries and at the same time to show how the main aggregates (such as national income and gross national product) are related to one another by building up the aggregates from related accounts. Two volumes have been published to date, giving comparable national accounts statistics for the member or associate member countries of OEEC. The first volume was published in 1954 under the title: "Statistics of National Product and Expenditures—1938, 1947 to 1952." The second volume was published in February 1957 under the title "Statistics of National Product and Expenditure, No. 2, 1938, and 1947 to 1955." Statistical presentations are in three sections. Section A facilitates comparison between the various countries of developments through time in gross national product and its major elements. Section B provides a comprehensive view of the growth and structural developments in the national product and expenditure of the OEEC area as a whole since 1938. Section C shows the individual country statistics along with detailed notes, on the sources and adjustments used in obtaining comparable country statistics.

The OEEC system of national accounts differs conceptually in certain minor respects from that of the U. N. These differences are expected to be eliminated in the near future as the result of collaboration between the two organizations.

Member countries of OEEC are Austria, Belgium, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Sweden, Switzerland, Turkey, and the United Kingdom. The United States and Canada participate in its work. Yugoslavia is represented by an observer. Spain participates as a full member in the work of the agricultural bodies of the Organization.

[3] In addition, France publishes an integrated set of national accounts.

TABLE 1.—*Annual national income and expenditure statistics available at end of 1956 by number of country tables in each continent*

Nature of statistics	All countries	Africa	America, North	America, South	Asia	Europe	Oceania
Production summaries:							
Gross or domestic national product:							
By purchaser [1]	52	6	10	7	9	18	2
By industry of origin	50	6	7	7	14	15	1
National income by distributive shares [1]	39	6	6	7	4	14	2
Use summaries:							
Household:							
Income and expenditure [1]	24	4	4	2	4	8	2
Composition of expenditure	28	2	7	2	2	14	1
General government: Income and expenditure [1]	31	4	5	3	5	12	2
Capital formation:							
Composition of investment [1]	39	5	6	4	6	16	2
Source of funds [1]	27	3	5	3	4	10	2
External transactions [1]	29	3	5	2	5	12	2

[1] Tables required for a complete set of national income accounts for current production.

Source: Statistics of National Income and Expenditure, Series H-10, Statistical Office of the United Nations, January 1957.

As might be expected (table 1), the most frequently compiled tables are on production. At the end of 1956, 52 countries were publishing annual gross national product data [4] by final purchaser, 50 countries were publishing gross product data by industry of origin, and 39 countries were publishing national income data by distributive shares. Among the final use summaries, the data most frequently prepared are on composition of investment. These data were being published by 39 countries at the end of 1956. The least frequently prepared data were those on household income and expenditure. These data were being published by 24 countries at the end of 1956. Production and use statistics were both being developed throughout the world as can be seen from table 1.

The "use" summary data in combination with the "production" data make possible a complete set of national accounts. As indicated before, the development of the use data is of comparatively recent origin. As late as the end of 1948, very few countries had developed use summaries. The production summaries are of earlier origin. For example, as of the end of 1948, 11 countries were publishing annual data on gross national product as compared to 52 at the end of 1956. Some 17 countries, mostly in Europe, were publishing annual data on national income by distributive shares at the end of 1948 as compared to 39 at the end of 1956. These comparisons of numbers understate the change which has occurred during the period, since they do not take into account the substantial gains that have been made in the direction of comparability and scope.[5]

III. COMPARABILITY OF STATISTICS

Achieving comparability of national accounts statistics between countries is beset with many problems. Among these are the achievement of uniform definitions, accurate or reliable statistics, and the proper equating of currencies. Given reasonably uniform definitions

[4] In addition, seventeen countries were publishing annual data on product totals.

[5] The statistics as of the end of 1948 were taken from National Income Statistics, 1938-47 the first of a series of annual publications on national income statistics prepared by the Statistical Office of the United Nations. A comparison of this publication with the U. N. Series H-10 publication now available points up the phenomenal development which has taken place in the past decade.

and reasonably accurate estimates, many useful types of intercountry comparisons can be made. For example, it is possible to compare trends over a period of time. It is also possible to make important structural comparisons such as the proportion of output going into capital formation as compared with that being consumed. Comparisons of the level of output between countries is a more difficult task because it requires not only uniform definitions, sufficiently accurate statistics in constant currency units, but also the proper equating of currencies.

In this paper, discussion is limited to examining the uniformity of definitions, and the reliability of the statistics both of which are difficult. The equating of national currencies presents an even more difficult problem.[6]

The Statistical Office of the United Nations has worked steadily towards the development and use of uniform definitions. The general approach has been to encourage each country to prepare their accounts with sufficient flexibility in detail to meet both its own needs and those of the United Nations for uniform reporting. This policy stems from the fact that the individual informational needs of a particular country may be different from those recommended by the United Nations.

Within recent years the Statistical Office of the United Nations has taken several important steps toward achieving uniformity of definitions in its published series. Among the most important was the issuance of a report, A System of National Accounts and Supporting Tables. This report was prepared in 1953 by a group of national income experts appointed by the Secretary-General. On the basis of this report, the U. N. Statistical Office developed a questionnaire containing nine basic tables with definitions. Then beginning in 1956, each country was requested to fill out the questionnaire for each of the years 1950 through 1955 in accordance with U. N. definitions and to footnote deviations therefrom. The nine tables cover the following topics:

On production:

1. Expenditure on gross national product by use, in current market prices and in constant market prices.
2. Industrial origin of gross domestic product in current prices and in constant prices.
3. Distribution of the national income by distributive shares in current prices.

On use:

4. The finance of gross domestic capital formation.
5. Composition of gross domestic fixed capital formation.
6. Receipts and expenditures of households.
7. Composition of private consumption expenditure in current market prices and in constant market prices.
8. General government revenue and expenditure.
9. External transactions.

Tables 1, 3, 4, 5, 6, 8 and 9 in current prices provide the necessary information for a set of integrated national income accounts for current production.

[6] For a study of the "practical possibilities of securing realistic international comparisons of the level of real national product" in the United States, United Kingdom, France, Germany, and Italy, see An International Comparison of National Products and the Purchasing Power of Currencies published by the Organisation for European Economic Cooperation (OEEC).

A copy of the questionnaire used in 1956 is shown in the appendix at the end of this memorandum. The results of the 1956 study were published in U. N. series H–10 in January 1957. The analysis on comparability of definitions which follows covers the series of 64 countries appearing in this document. The comparability ratings are necessarily one of personal judgment and were made in collaboration with the Statistical Office of the United Nations on the basis of deviations in country practices as reflected in the footnotes appearing in the country chapters of U. N. series H–10. The analysis is limited to tables in current prices; it was not feasible to rate also the series shown in constant prices. The results are shown in table 2. For purposes of convenience, the following symbols are used:

A—Country estimates in U. N. series H–10 conform to U. N. definitions.

B—Country estimates in U. N. series H–10 adjusted to U. N. definitions by the reporting country insofar as possible; important definitional differences remain or important details lacking.

C—Country estimates in U. N. series H–10 do not conform to U. N. definitions and have not been adjusted.

TABLE 2.—*Annual national income and expenditure statistics available at end of 1956, country tables classified by comparability ratings* [1]

Nature of table	Total				Africa and Asia				America, North and South				Europe and Oceania			
	All	A	B	C	All	A	B	C	All	A	B	C	All	A	B	C
Production summaries:																
Gross or domestic national product:																
By purchaser	52	22	27	3	15	4	10	1	17	7	10	----	20	11	7	2
By industry of origin	50	20	27	3	20	4	14	2	14	6	8	----	16	10	5	1
National income: By distributive shares	39	14	23	2	10	2	7	1	13	3	10	----	16	9	6	1
Use summaries:																
Household:																
Income and expenditures	24	12	12	----	8	3	5	----	6	4	2	----	10	5	5	----
Composition of expenditures	28	21	5	2	4	3	1	----	9	8	1	----	15	10	3	2
General government: Income and expenditures	31	19	12	----	9	4	5	----	8	5	3	----	14	10	4	----
Capital formation:																
Composition of investment	39	17	20	2	11	4	7	----	10	6	4	----	18	7	9	2
Source of funds	27	14	13	----	7	2	5	----	8	4	4	----	12	8	4	----
External transactions	29	23	6	----	8	7	1	----	7	5	2	----	14	11	3	----
Total, summaries	319	162	145	12	92	33	55	4	92	48	44	----	135	81	46	8
Production	141	56	77	8	45	10	31	4	44	16	28	----	52	30	18	4
Use	178	106	68	4	47	23	24	----	48	32	16	----	83	51	28	4
Total countries	64	----	----	----	24	----	----	----	19	----	----	----	21	----	----	----

[1] Comparability rating: A—Country estimates in H–10 conform to U. N. definitions; B—Country estimates in H–10 adjusted to U. N. definitions by the reporting country insofar as possible; important definitional differences remain or important details lacking; C—Country estimates in H–10 do not conform to U. N. definitions, and have not been adjusted.

For purposes of examining the comparability problem geographically, three groupings of countries have been shown: Africa and Asia in which the reporting countries are usually relative newcomers to the field, Europe and Oceania in which the development of national-income accounting has been under way for some time, and North and South America where except for Canada and the United States the reporting countries are relative newcomers to the field. Of the 64 countries covered in the analysis, 24 are in Africa and Asia, 21 are in Europe and Oceania, and 19 are in North and South America.

As can be seen from table 2, about one-half (162 out of 319) of the summary tables published in U. N. series H–10 conform to U. N. definitions.[7] Somewhat less than one-half of the tables (145 out of 319) had been adjusted to U. N. definitions, insofar as possible, but still contained important definitional differences or lacked important details. In only 12 out of the 319 country tables was no conformity achieved; this situation was limited to a few countries where the concepts differed so sharply from the United Nations concepts that it was not feasible to make adjustments.

The proportion of tables which conform to U. N. definitions by subject matter varies. In general the proportion seems to be somewhat less for production tables than for use tables. Among the production tables, the proportion conforming varies from about one-third (national income by distributive shares) to about one-half (gross product by purchaser). Among the use tables, the proportion conforming varies from about one-half (capital formation source of funds) to about four-fifths (external transactions).

As shown in table 2, in Africa and Asia about one-third (33 out of 92) of the country tables published in U. N. Series H–10 conformed to U. N. definitions. Only about one-fourth (10 out of 45) of the production tables conformed to U. N. definitions as compared to about one-half (23 out of 47) of the use tables.

In Europe and Oceania about three-fifths (81 out of 135) of the country tables conformed to U. N. definitions. This proportion also held for the production tables (30 out of 52) and the use tables (51 out of 83).

In North and South America, about one-half (48 out of 92) of the country tables conformed to U. N. definitions. Only about three-eights (16 out of 44) of the production tables conformed to U. N. definitions as compared with two-thirds (32 out of 48) of the use tables.

On the whole, a large percentage of the reporting countries prepare their national accounts in accordance with the U. N. definitions or in such form that the accounts are readily adjustable to the U. N. definitions. In general, there is greater conformity among use summaries than among production summaries. Geographically, comparability is greatest among the countries of Europe and Oceania.

IV. QUALITY OF STATISTICS

Appraisal of the accuracy or reliability of national income statistics is very difficult. Each final published figure is often a summary of many components in which each component is a composite of many elements, each of which may require varying degrees of estimation and personal judgment applied to basic source data. Consequently, a thorough attempt to quantify the degree of accuracy or lack of accuracy of any particular published estimate requires not only a detailed examination of the estimation procedures, but also consideration of the validity of the various basic source data. Comparatively few countries have published evaluations relating to the accuracy or reliability of their national income statistics and there is considerable difference of opinion as to how this should be done. In this connection, the practices of the United States and the United Kingdom may

[7] About one-fourth of the conforming tables were prepared originally by the country for its own use in accordance with U. N. definitions. The remaining three-fourths were conformed to U. N. definitions.

be noted. The national accounts statistics of each of these countries are generally recognized as among the most reliable in the world today.

In the United States, the Office of Business Economics has published comprehensive technical notes as a part of its National Income Supplement (1954) to the Survey of Current Business. In the Supplement the methodology used to develop each important component is explained in considerable detail. In addition, the Office publishes quarterly and annual articles in the Survey of Current Business which interpret the most recent economic developments as revealed by the national income series. Generally the Office has not attempted to quantify the accuracy of its series.

Perhaps the most ambitious project in quantifying the accuracy of national income estimates is that recently published (1956) by the Central Statistical Office of the United Kingdom in National Income Statistics: Sources and Methods. In this publication each of the principal series making up gross national income and gross national product is given a reliability rating. In addition, there is a detailed rating of some of the more important components (i. e., income from employment, consumer expenditure and gross domestic capital formation). Three gradings are used:

A± less than 3 percent margin of error.
B± 3 percent to 10 percent margin of error.
C± more than 10 percent margin of error.

These margins of error are personal judgments and not probability sampling errors; in the opinion of the estimators, there is about a 90-percent chance that the true value lies within the rating. The rating applies to the level of the estimate. The error in the year-to-year change is smaller.

An example of the ratings used is shown in the following table summarizing the reliability of the major components:

Reliability of estimates of major components at current prices—United Kingdom

[A ± less than 3 percent; B ± 3 percent to 10 percent; C ± more than 10 percent]

	Latest year but 1	Latest year
Incomes:		
Income from employment [1]	A	A
Income from self-employment	B	B
Gross trading profits of companies	B	B
Trading surpluses of public corporations	A	A
Gross profits of other public enterprises	A	A
Rent	B	B
Net income from abroad	C	C
Rent, dividends and interest received by persons	B	B
Current grants from public authorities received by persons	A	A
Expenditures:		
Consumers' expenditures [1]	A	A
Public authorities' current expenditure	A	A
Gross domestic fixed capital formation [1]	B	B
Value of increase in stocks and work in progress	C	C
Of which—		
Stock appreciation	C	C
Physical increase	C	C
Exports of goods and services	A	A
Imports of goods and services	A	A
Taxes on expenditure	A	A
Subsidies	A	A
Gross national product	A	A

[1] A detailed rating is also given for the components of this estimate.

Source: Central Statistical Office, National Income Statistics, Sources and Methods, Her Majesty's Stationery Office, 1956, p. 36.

Rating the national-accounts statistics published by various countries according to reliability must depend in large measure on personal judgment. Approximate relative measures of quality can be developed on a judgment basis for each country by considering the nature of the basic source data available for the estimates and the amount of experience the country has had in the preparation of such estimates. The country measures can then be grouped by continents to present a summary of relative quality of the published material. This procedure was followed to produce table 3. The general appraisal of each country's national-accounts statistics was made in collaboration with the United Nations Statistical Office. The country rating is based on an appraisal of the quality of the specific tables shown in U. N. Series H–10. The rating takes into consideration the extent and quality of the source data available and the methods of estimation employed. The following relative rating schedule is used in the table: I—Very good; II—Good; III—Fair; IV—Weak.

TABLE 3.—*Quality rating of national accounts statistics in 64 countries, by continents, end of 1956*

Continent	All	I	II	III	IV
Total	64	17	9	18	20
Africa	9		1	2	6
America, North	11	2	1	5	3
America, South	8		2	4	2
Asia	15		2	5	8
Europe and Oceania	21	15	3	2	1

As can be seen from table 3, the story is a fairly simple one. The national-income statistics of countries in Africa and Asia generally range in quality from fair to weak (21 out of 24); only 3 out of 24 countries have a rating of good. While the statistics of countries in North and South America range in quality from very good to weak, about three-fourths of the countries (14 out of 19) produce data rated as either fair or weak; only about one-fourth (5 out of 19) of the countries rate as very good or good.

By contrast, in Europe and Oceania, about three-fourths of the countries (15 out of 21) produce national-income statistics which rate very good in quality.

One further comparison was made by examining simultaneously the quality ratings and the comparability ratings. The results are shown in table 4. One might expect that countries with the highest quality ratings would also generally have the highest comparability ratings. This relationship tends to hold for Europe and Oceania. Thus, in the 15 countries whose estimates rate as very good, about two-thirds of the production tables (24 out of 38) and use tables (43 out of 68) conform to U. N. definitions. For the remaining 6 countries whose estimates range from good to weak, about one-half of the tables conform to U. N. definitions (i. e., 6 out of 14 production tables and 8 out of 15 use tables). This relationship, however, is by no means general. In Africa, for example, countries with the lowest quality ratings tend to have the highest comparability ratings. This indicates that these countries—as newcomers to the field—were able to set up accounting systems which either conformed or could be

readily adjusted to the U. N. definitions. For the same reason, however (i. e., as newcomers to the field), there still remains the task of developing good basic source data with which to improve the quality of the estimates. The inverse relationship between quality and comparability tends to hold also in the statistics of countries in North and South America.

TABLE 4.—*Annual national income and expenditure statistics available at end of 1956: Comparability ratings of summaries classified by country quality rating*

Continents	Country: Quality rating		Production summaries: Comparability rating				Use summaries: Comparability rating			
	Rating	Number	All	A	B	C	All	A	B	C
Grand total	All	64	141	56	77	8	178	106	68	4
	I	17	44	26	16	2	80	50	28	2
	II	9	25	6	17	2	33	14	17	2
	III	18	40	16	24		46	30	16	
	IV	20	32	8	20	4	19	12	7	
Africa	All	9	18	6	10	2	21	15	6	
	I									
	II	1	2	1	1		3	1	2	
	III	2	4		4		7	4	3	
	IV	6	12	5	5	2	11	10	1	
America, North	All	11	23	11	12		32	23	9	
	I	2	6	2	4		12	7	5	
	II	1	3		3		1		1	
	III	5	11	8	3		17	15	2	
	IV	3	3	1	2		2	1	1	
America, South	All	8	21	5	16		16	9	7	
	I									
	II	2	6	1	5		6	3	3	
	III	4	11	4	7		10	6	4	
	IV	2	4		4					
Asia	All	15	27	4	21	2	26	8	18	
	I									
	II	2	6	1	5		12	4	8	
	III	5	9	1	8		8	3	5	
	IV	8	12	2	8	2	6	1	5	
Europe and Oceania	All	21	52	30	18	4	83	51	28	4
	I	15	38	24	12	2	68	43	23	2
	II	3	8	3	3	2	11	6	3	2
	III	2	5	3	2		4	2	2	
	IV	1	1		1					

NOTE.—See text for key to ratings.

TABLE 5

National income and expenditure statistics available at end of 1956, by country [1]

Continent and country	Complete accounts	Production summaries			Use summaries					
		Gross or domestic national product		National income by distributive shares	Households		Government: Income and expenditure	Domestic capital formation		External transactions: Imports and exports
		By purchaser	By industry of origin		Income and expenditure	Composition of expenditure		Composition of investment	Source of funds	
Grand total	23	52	50	30	24	28	31	39	27	29
Africa, total	3	6	6	6	4	2	4	5	3	3
Belgian Congo	X	[2] X	[2] X	X	X		X	X	X	X
Egypt			X							
Gold Coast		X		X		X		X		
Kenya			X	X						
Mauritius	X	X	X	X	X		X		X	X
Nigeria		X	X			X		X		
Rhodesia and Nyasaland (Federation)	X	[3] X		X	X		X	X	X	X
Uganda				X						
Union of South Africa		X	X		X		X	X		
America, North, total	4	10	7	6	4	7	5	6	5	5
Canada	X	[2] X	X	X	X	X	X	X	X	X
Costa Rica		X	X							
Cuba				X						
Dominican Republic		X				X		X		
Guatemala		[3] X								
Honduras	X	[2] X	X	X	X	[3] X	X	X	X	X
Jamaica		X	X			X	X		X	X
Mexico		X						X		
Panama	X	X	X	X	X	X	X	X	X	X
Puerto Rico		X	X	X		X				
United States	X	[2] X	X	X	X	X	X	X	X	X
America, South, total	1	7	7	7	2	2	3	4	3	2
Argentina		[3] X	[3] X	X				X		
Brazil		[3] X	X	X				X		
Chile		[3] X	X	X		[3] X	X	X	X	X
Colombia		X	X	X	X		X		X	

Ecuador	X	X	X	X	X	X	X	X	X	X
Paraguay			X							
Peru		X	X	X						
Venezuela		X		X						
Asia, total	4	9	14	4	4	2	5	6	4	5
Burma	X	X	X		X		X	X	X	X
Ceylon		X	X							
China Taiwan			X							
Hong Kong			X	X				X		
India			[2] X				X			X
Indonesia		X	X							
Israel	X	[2] X	X	X	X	[2] X	X	X	X	X
Japan	X	X	X	X	X	X	X	X	X	X
Korea, South		X	X							
Lebanon			X							
Malaya (Federation)		X						X		
Pakistan			[2] X							
Philippines	X	X	X	X	X		X	X	X	X
Thailand			[2] X							
Turkey		X	[2] X							
Europe, total	9	18	15	14	8	14	12	16	10	12
Austria	X	[2] X	[2] X	X	X	[2] X	X	X	X	X
Belgium	X	X	[2] X	X	X	[2] X	X	X	X	X
Denmark	X	[2] X	[2] X	X	X	[2] X	X	X	X	X
Finland		X	[2] X	X		X		X		X
France		[2] X		X		[2] X		X		
Germany, West		[2] X	[2] X	X		[2] X	X	X		
Greece		[2] X	X	X			X	X	X	X
Iceland		X								
Ireland	X	[2] X	X	X	X	[2] X	X	X	X	X
Italy		[2] X	[2] X			[2] X		X	X	X
Luxembourg	X	[2] X	[2] X	X	X	X	X	X	X	X
Netherlands	X	[2] X	X	X	X	[2] X	X	X	X	X
Norway	X	[2] X	[2] X	X		[2] X	X	X	X	X
Portugal		[2] X	[2] X							
Spain			X							
Sweden	X	[2] X		X	X	[2] X	X	X		X
Switzerland		[2] X		X			X	X		
United Kingdom	X	[2] X	[2] X	X	X	[2] X	X	X	X	X
Yugoslavia		X	X			X		X		
Oceania, total	2	2	1	2	2	1	2	2	2	2
Australia	X	X		X	X	X	X	X	X	X
New Zealand	X	X	X	X	X		X	X	X	X

[1] Based upon: U. N. Statistics of National Income and Expenditure, Series H-10, January 1957.

[2] This summary also shown in constant prices.

APPENDIX

STATISTICAL OFFICE
of the
UNITED NATIONS

National Accounts Questionnaire

UNITED NATIONS
NEW YORK

Instructions for completing the questionnaire

1. In order to obtain uniformity in reporting, the data requested should be entered directly in the tables of this questionnaire. A duplicate of the questionnaire is provided for your own files.

2. To assist in the compilation of these tables short definitions of the flows to be reported are given. More detailed information will be found in A System of National Accounts and Supporting Tables (Studies in Methods, Series F, No. 2, Statistical Office, United Nations, New York, 1953) 1/. The relevant page number is indicated in the first column of each table.

3. The definitions of the flows are as proposed in A System of National Accounts and Supporting Tables and the classifications incorporated are largely identical with those suggested in the supporting tables of this system. The corresponding flows in the System are indicated by number in the second column in each table.

4. Where the definition of the particular flow or flows reported by a country differs from that in the United Nations system of accounts, the more important deviations should be noted in the space provided immediately below the corresponding table or entered on a supplementary page and appended to the questionnaire. Every effort should be made, however, to have the data conform to the standard definitions and classifications in order to facilitate international comparability.

5. Preliminary or provisional figurrs should be indicated appropriately.

6. When the period referred to is not a calendar year this should be specified.

7. The date of completion should be entered on each table.

8. The following symbols should be employed:

- \- = nil or negligible (less than half final digit)
- N.A. = not available
- * = provisional figure

1/ For the flows of Table 9, see Balance of Payments Manual (International Monetary Fund, Washington, 1950). The following publications may also be found useful:
Concepts and Definition of Capital Formation, Studies in Methods, Series F, No. 3, Statistical Office, United Nations, New York, 1953
Methods of National Income Estimation, Studies in Methods, Series F, No. 8, Statistical Office, United Nations, New York, 1955.
International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No. 4, Statistical Office, United Nations, New York, 1948.

General note on the definition of the sectors of the economy

In the report A System of National Accounts and Supporting Tables transactors are grouped into three broad sectors: (1) enterprises, (2) households, and (3) general government, and a separate set of accounts for each of these sectors is established. The definition of the three sectors is as follows:

(a) ENTERPRISES include all firms, organisations and institutions which produce goods and services for sale at a price intended approximately to cover the cost of production. The class of enterprises includes the following categories:

(1) All unincorporated private enterprises such as farms, retail shops, craftsmen established on their own account and independent professional men.

(b) All households and private non-profit institutions in their capacity as landlords of dwellings whether or not they occupy their own properties.

(c) All private corporations other than private non-profit institutions serving households. Enterprises organized on a cooperative basis are included in this group.

(d) Non-profit institutions serving enterprises, for example, different kinds of associations and research units.

(e) All public enterprises, that is, in general, all enterprises as defined above which are owned or controlled by public authorities. Many of these, such as nationalized industries, the post office and local authority housing estates, are clearly recognizable but it is convenient to include in this category certain other government agencies the enterprises character of which is less clear. These are government agencies which provide services to other government agencies of a kind which are often provided by private enterprise and which are established independently of the agencies which they service. Examples are munitions factories, repair shops for motor vehicles and navy dockyards.

For certain purposes it is convenient to make a distinction between government enterprises and public corporations.

Government enterprises include all public enterprises which are financially integrated with general government and do not keep their own reserves apart from working balances.

Public corporations include, in the first place, corporations formally established and regulated by public law, their shares being wholly or mainly owned by public authorities and their management mainly chosen by public authorities. In the second place, private corporations should be included if they can be considered to be controlled by public authorities.

(2) HOUSEHOLDS AND PRIVATE NON-PROFIT INSTITUTIONS comprise all individuals who are normal residents of the country and private organizations, whether or not in the form of corporations such as associations, clubs and foundations, which are not established primarily with the aim of earning a profit and are not mainly rendering services to enterprises. Pension funds set up for residents are also included in this sector.

(3) GENERAL GOVERNMENT comprises government agencies, whether central, state or local, which undertake all forms of activity, for example administration, education, defence and health services, other than those performed by agencies included in the category of government enterprises.

It is convenient to include here, in addition to government agencies in the narrower sense, social security arrangements, even if they are not already formally part of government if their activities may be regarded as an instrument of the social policy of the government.

Notes to Table 1a.

1. Private consumption expenditure. Value of final expenditure by households and private non-profit institutions on current goods and services less sales of similar goods (mainly second-hand) and services plus value of gifts in kind (net) received from rest of world.

Purchases by residents abroad, apart from those chargeable to business expense, should be included and those made by visiting non-residents should be excluded.

For households, all purchases of goods irrespective of their durability are entered with the exception of land and buildings. Purchases of new dwellings are included in item 3 below. For private non-profit institutions, purchases and own-account construction of fixed assets are excluded and entered in gross domestic fixed capital formation.

Income in kind such as food, shelter and clothing furnished to employees is included at cost. A similar imputation is made for rent in respect of owner-occupied dwellings and for the value of homegrown food consumed by farm families and others.

2. General government consumption expenditure. Compensation of employees and purchases by general government from enterprises and from the rest of world less sales of goods and services (other than surplus stores which are treated as a decrease in government stocks) to enterprises and households.

The general government sector covers all central, state or local government agencies other than those defined as public enterprises, irrespective of the treatment of those agencies in the government accounts of the particular country. Social security schemes are included.

Expenditure jointly financed by households and general government is allocated to the sector which actually makes the purchase and the contribution of the other sector is treated as a transfer. However, where households pay only a nominal amount the general government sector should be considered as the purchaser and the charge to households recorded as a transfer to general government.

Expenditure of a capital nature for national defence (excluding civil defence) is treated as consumption expenditure while all expenditure on capital formation for civil purposes (as defined in item 3 below) is included in gross domestic fixed capital formation.

Transfers in kind made by general government to the rest of world are excluded here, being included in exports of the donor country while transfers in kind received from abroad by general government forms part of its consumption expenditure. Cash transfers are not recorded in any component of final expenditure. However transfers of military equipment are entered in consumption expenditure rather than in exports and omitted in the accounts of the receiving country.

3. Gross fixed capital formation. Value of purchases and own-account construction of fixed assets (civilian construction and works, machinery and equipment) by enterprises, private non-profit institutions and general government. Expenditure of a capital nature by general government for defence (excluding civil defence) is treated as general government consumption expenditure. Expenditure on durable goods purchased by households other than new dwellings is treated as private consumption expenditure.

All expenses directly related to the acquisition of capital goods such as transportation and installation charges, fees for engineering, architectural, legal and other services are included. Indirect expenditures, including flotation costs, commissions, and other financing costs are, on the other hand, regarded as current expenditures.

Expenditures on irrigation projects, flood control, forest clearance, land reclamation and improvement, etc., and on the development of plantations, orchards, vineyards, forests, etc., are included. The value of newly discovered mineral deposits and other natural resources is, on the other hand, excluded.

Outlays on repair and maintenance of capital goods which extend their lifetime or increase their productivity should be included but normal repairs and maintenance should be treated as current expenditure.

Transfer costs involved in the purchase of used domestic assets,

1a. Expenditure on gross national product

At current market prices

Country _____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
26	1.4	1. Private consumption expenditure							
27	1.5	2. General government consumption expenditure							
29	1.6	3. Gross fixed capital formation							
30	1.7	4. Increase in stocks							
31	1.8	5. Exports of goods and services							
32	1.9	6. Less imports of goods and services							
		Expenditure on gross domestic product							
34	2.10	7. Net factor income from abroad							
		Expenditure on gross national product							

Country notes

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 1a. (cont'd.)

including transportation costs, legal fees, installation expenses,etc., are part of fixed capital formation. Changes in work in progress in construction should also be included.

4. Increase in stocks. Value of the physical change in raw materials, work in progress (other than work in progress in construction which is included in fixed capital formation) and finished goods held by enterprises. Changes in stocks of strategic materials or other emergency stocks held by general government are also included.

Since the change in book value of stocks held by enterprises reflects changes in unit prices as well as in quantity, it is necessary to eliminate elements of capital gain or loss associated with price fluctuations. This may be done by valuing the physical change in stocks at an average of prices ruling over the year.

Increases in natural resources due to growth as with forests and standing crops are excluded entirely. Changes in official gold stocks as well as increases in private hoards of gold are excluded and treated as changes in foreign investment.

Changes in stocks of commodities owned by residents but located abroad are included while changes in stocks held in the country but owned by non-residents are excluded.

5. and 6. Exports of goods and services and Imports of goods and services. The value of the goods and services sold to the rest of the world and the value of the corresponding purchases, respectively. These goods and services comprise merchandise and transportation, insurance and other services. The value of gifts in kind and other exports and imports financed by means of international transfers is included but the value of military equipment transferred between governments is excluded.

7. Net factor income payments from the rest of the world. Investment income such as rent, interest, dividends, and branch and subsidiary profits, earnings of residents working abroad and other income earned abroad by normal residents. Except in the case of branch and subsidiary profits, these incomes should be valued gross of taxation and of consumption expenditure incurred abroad by the recipient.

Notes to Table 1b.

This table records the total and the various components of final expenditure given in Table 1 a in constant prices. A brief account of the methods employed in expressing these components in constant prices should be given, including some indication of the scope and coverage of the price or volume indexes used in this work. Special interest attaches to the methods and assumptions used to estimate the following items in constant prices: 1) gross fixed capital formation 2) increase in stocks 3) general government consumption expenditure 4) net factor income payments from the rest of the world 5) effect of changes in terms of trade.

1b. Expenditure on gross national product

At constant market prices

Country _____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
26	1.4	1. Private consumption expenditure							
27	1.5	2. General government consumption expenditure							
29	1.6	3. Gross fixed capital formation							
30	1.7	4. Increase in stocks							
31	1.8	5. Exports of goods and services							
32	1.9	6. Less imports of goods and services							
		Expenditure on gross domestic product							
34	2.10	7. Net factor income from abroad							
		Expenditure on gross national product							
		8. Adjustment for change in terms of trade							
		Gross national income at market prices							

Country notes

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 2a.

The entry in this table for each industry is equal to its contribution to gross domestic product, that is, the sum of compensation of employees, interest, net rent, profit and provisions for the consumption of fixed capital, irrespective of whether any part of these factor incomes accrues to normal residents or to foreigners. Alternatively, it equals the value of sales at market prices plus the value of the physical increase in stocks less the market value of all current purchases from other enterprises and all net indirect taxation. Goods or services produced in the enterprise for capital formation in the enterprise or for consumption by the owner or his employees are included as imputed sales.

The contribution of banks and similar financial intermediaries to the gross domestic product is derived by imputing to depositors a service charge equal to the excess of investment income accruing to these enterprises over deposit interest accruing to depositors and by imputing at the same time a corresponding amount as interest to depositors. While these imputations do not change the income of banks or of other enterprises, they result in a shift in the relative contribution to gross domestic product from other enterprises to banks in so far as the imputation is made in respect of business deposits; they result in an increase in the domestic product to the extent that the imputation is made in respect of the deposits of households.

The contribution of general government, as here defined, consists of compensation of employees (including members of the armed forces) plus net rent on buildings other than dwellings. Payments of interest on public debt are excluded. It is to be noted, however, that item 10, Public Administration and Defence, in accordance with the International Standard Industrial Classification (ISIC), only covers a rather narrowly defined range of government operations while the rest is transferred to other groups. Thus, for example, traffic installations (lighthouses, pilot services, etc.) will be in item 6 while educational and health services will be in item 11.

Surpluses or deficits of public enterprises may have to be treated as indirect taxes or subsidies in certain instances. The circumstances in which this treatment should be followed are indicated in the note to item 6 of Table 3.

The classification in Table 2 corresponds closely to the ISIC: a detailed reconciliation of the two classifications is set out on p. 40 of A System of National Accounts and Supporting Tables. The only difference between the two classifications concerns the treatment of dwellings and other real estate. The category "real estate" which is included in item 8 covers only the activities of firms such as house and estate agents and rent collecting agents. Item 9, which is a category not found in the ISIC, records the income originating from the use of dwellings. All other income arising from the use of land and buildings is included in the contribution to gross domestic product of the industry actually using the land and buildings, irrespective of ownership.

The unit of classification in the ISIC is the establishment and accordingly the estimates of the contributions of the different trades should be drawn up on this basis where possible.

2a. Industrial origin of gross domestic product

At current factor cost

Country _____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
32		1. Agriculture, forestry and fishing							
33		2. Mining and quarrying							
		3. Manufacturing							
		4. Construction							
		5. Electricity, gas, water and sanitary services . . .							
		6. Transportation, storage and communication . . .							
		7. Wholesale and retail trade							
		8. Banking, insurance and real estate							
		9. Ownership of dwellings							
		10. Public administration and defence							
		11. Services							
	1.1	Gross domestic product at factor cost							

Country notes

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 2b.

This table records the flows of Table 2 a in constant prices. A brief account of the methods and assumptions employed in expressing the individual product flows in constant prices should be given. Some indication of the scope and coverage of the price or volume indexes used in this work should also be given.

2b. Industrial origin of gross domestic product

At constant factor cost

Country _____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
32		1. Agriculture, forestry and fishing							
33		2. Mining and quarrying							
		3. Manufacturing							
		4. Construction							
		5. Electricity, gas, water and sanitary services . . .							
		6. Transportation, storage and communication . . .							
		7. Wholesale and retail trade							
		8. Banking, insurance, and real estate							
		9. Ownership of dwellings							
		10. Public administration and defence							
		11. Services							
	1.1	Gross domestic product at factor cost							

Country notes

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 3.

1. Compensation of employees. All wages, salaries and supplements, whether in cash or in kind, payable to normal residents employed by private and public enterprises, households and private non-profit institutions, and general government, as well as labour income payable by the rest of the world to normal residents. Pay and allowances of members of the armed forces are included. These earnings are recorded before payment of taxes and deduction of social security contributions. Payments by employers to social security agencies on behalf of employees who are normal residents are considered part of this flow.

The compensation of members of the armed forces stationed abroad, overseas diplomatic and consular staffs, employees on ships and aircraft of domestic carriers operating abroad should be included.

The value of income in kind such as food, lodging and clothing provided by employers should be included at cost to the employer in so far as it represents an additional benefit to the employees.

2. Income from unincorporated enterprises. Income in money and kind accruing to individuals in their capacity as sole proprietors or partners of enterprises and as independent professional men. It includes all the sums retained and invested in the enterprise after provision has been made for capital consumption (calculated at replacement cost). Income from the ownership of land and buildings and the possession of financial assets is excluded and entered in item 3. An adjustment may be necessary as a consequence of revaluing stock changes in accordance with the procedure set out in item 4 of Table 1 a.

3. Income from property. All actual or imputed payments to individuals and private non-profit institutions in their capacity as owners of financial assets, land and buildings. Rent, interest, dividends and corporate transfer payments constitute the principal components of this flow.

Rent is recorded net of costs of operation such as insurance, repairs, rates and taxes, water charges, commissions, mortgage interest, and depreciation. It includes the corresponding rental value of owner-occupied dwellings and farm houses.

Interest comprises all actual interest payments receivable by households and private non-profit institutions including interest on government bonds and imputed interest receivable from life-insurance, banks and similar financial intermediaries.

Dividends includes all such payments accruing to households and private non-profit institutions from corporations and cooperatives.

Corporate transfer payments refers to grants by corporations to households and private non-profit institutions such as research grants to foundations serving the general public. Allowances for bad debts are also included here.

4. Saving of corporations. That part of the income earned by private corporations and cooperatives, and public corporations which remains after direct taxes are paid and dividends distributed. In estimating this flow provisions for capital consumption are calculated at replacement cost. An adjustment may also be necessary as a consequence of revaluing stock changes in accordance with the procedure set out in item 4 of Table 1 a.

5. Direct taxes on corporations. Taxes levied at regular intervals on profits, capital or net worth. Corporate income and excess profits taxes, taxes on undistributed profits or on capital stock are included.

6. General government income from property and entrepreneurship. Sums receivable by general government from government enterprises as well as net rent, interest and dividends accruing to it from the ownership of buildings or financial assets.

Profits (or losses) of state monopolies are best treated as indirect taxes (or subsidies) and should not be recorded in this flow. In the case of other government enterprises their surpluses or deficits should normally be recorded in this flow especially if these

3. Distribution of the national income

At current factor cost

Country _____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency .....)						
35	2.1	1. Compensation of employees							
35	2.2	2. Income from unincorporated enterprises							
35	2.3	3. Income from property of households, etc.							
36	2.4	4. Saving of corporations							
36	2.5	5. Direct taxes on corporations							
36	2.6	6. General government income from property and entrepreneurship							
36	2.7	7. Less interest on the public debt							
36	2.8	8. Less interest on consumers' debt							
		National income							

Country notes

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 3. (cont'd.)

enterprises operate in competition with domestic or foreign producers.

An imputation of net rent is made for buildings owned and occupied by the government.

7. Interest on the public debt. Interest on all kinds of general government debt whether owed by central, state or local authorities.

8. Interest on consumers' debt. Interest on all debt owed by households and private non-profit institutions in their capacity as consumers.

Notes to Table 4.

1. Provisions for the consumption of fixed capital. These provisions cover the current value of wear and tear and foreseen obsolescence of all fixed capital as well as accidental damage to it. Unforeseen obsolescence is treated as a capital loss at the time at which it actually occurs.

The scope of the fixed capital for which these provisions are made is given by the definition of gross domestic fixed capital formation with the exception that provisions for the fixed assets of general government are limited to those for buildings. No provisions are made for the depletion of exhaustible natural resources.

The provisions charged should take into account the cost of replacing the assets in the year for which the provisions are being calculated. No attempt should be made to allow for arrears of depreciation arising from the fact that earlier provisions have been made at a lower price level.

Provisions for accidental damage to fixed assets should be determined by reference to the unexpired lifetime of the assets valued at replacement cost. To the extent that losses are insured, provisions less administrative costs of insurance companies furnish an appropriate measure of accidental damage.

2. Saving. These flows represent the balancing items on the current accounts of enterprises, households and private non-profit institutions, and general government, that is, the surplus of current incomings over current outgoings. They are therefore defined in terms of the other entries in the system.

3. Deficit of the nation on current account. This is the balancing item in the current account of transactions with the rest of the world and as in the case of saving is defined in terms of other entries. It is equal to the net borrowing of the nation abroad plus net international transfers received.

4. The finance of gross domestic capital formation

Country _____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
33	3.3	1. Provisions for the consumption of fixed capital . . .							
		a. Private enterprises							
		b. Public enterprises							
		c. General government							
37		2. Saving							
	5.4	a. General government							
	2.4	b. Public corporations							
		c. Private corporations							
	4.4	d. Households and private non-profit institutions. .							
	-6.4	3. Deficit of the nation on current account							
		Gross domestic capital formation							

Country notes

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 5.

A. By type of capital good

a. Dwellings. All expenditure on new construction and major alterations to residential buildings, including the value of the change in work in progress but excluding the value of the land before improvement. Expenditure on all permanent fixtures such as furnaces, fixed stoves, central heating and water supply installations is included.

b. Non-residential building. All buildings other than dwellings. It includes industrial buildings, warehouses, office buildings, stores, restaurants, hotels, farm buildings and buildings for religious, educational and similar purposes. Major alterations and work in progress are included. Movable equipment which is not an integral part of the structure is not included.

c. Other construction and works. New construction and major alterations and repairs. Permanent ways of railroads, subways and tunnels, marine construction, piers and other harbour facilities, car parking facilities, airports, athletic fields, roads, streets and sewers, electricity transmission lines, gas mains and pipes, and communication systems such as telephone and telegraph lines, etc. Large expenditures by farmers for irrigation projects, flood control, forest clearance, land reclamation, etc. should be included.

d. Transport equipment. Ships, motor cars and aircraft for commercial use, trucks and commercial vehicles, tractors for road haulage, vehicles used for public transport systems, railway and tramway rolling stock, carts and wagons.

e. Machinery and other equipment. All capital expenditure not included in the above groups. It includes power-generating machinery, agricultural machinery and implements, tractors (other than for road haulage), office machinery, equipment and furniture, metal working machinery, mining, construction and other industrial machinery and equipment, and instruments used by professional men.

B. By industrial use

The industrial classification employed is identical with that in Table 2. Changes in work in progress in building and construction should be treated as capital formation by the industries which are to use the assets when completed.

In accordance with the ISIC the category "public administration" covers only a narrowly-defined range of general government activities. Thus capital expenditure on traffic installations is entered in "transportation, storage and communication" while capital expenditure on educational and health facilities is entered in "services".

C. By type of purchaser

Gross fixed capital formation undertaken for private enterprises (including households and private non-profit institutions), public enterprises and general government. In this classification capital formation for general government excludes work carried out for the private sector of the economy with financial support from the government in the form of loans and grants.

In Sections B and C of Table 5 flows of used assets should preferably be entered gross. That is, expenditure on the acquisition of used assets including costs of transportation and installation should be entered as part of each industry's capital formation, while sales of used assets should be entered as negative capital formation. The alternative is to enter for the industry acquiring these assets only the costs involved in their transfer. In either case the total of gross fixed capital formation should correspond with that of Section A.

5. Composition of gross domestic fixed capital formation

At current market prices Country_____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
29		A. By type of capital good							
		a. Dwellings							
		b. Non-residential buildings							
		c. Other construction and works							
		d. Transport equipment							
		e. Machinery and other equipment							
	1.6	Gross domestic fixed capital formation							
29		B. By industrial use							
		a. Agriculture, forestry and fishing							
		b. Mining and quarrying							
		c. Manufacturing							
		d. Construction							
		e. Electricity, gas and water							
		f. Transportation, storage and communications . .							
		g. Wholesale and retail trade							
		h. Banking, insurance and real estate							
		i. Ownership of dwellings							
		j. Public administration							
		k. Service industries							
	1.6	Gross domestic fixed capital formation							
30		C. By type of purchaser							
		a. Private enterprises							
		b. Public enterprises							
		c. General government							
	1.6	Gross domestic fixed capital formation							

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 6.

1. Compensation of employees. See Table 3, item 1.

2. Income from property and entrepreneurship less interest on consumer debt. See Table 3; this item equals item 2 + item 3 - item 8.

3. Current transfers from general government. All unilateral payments (other than interest on the public debt) which are considered to provide additions to the recipients' incomes. It includes the following categories.

   a) Education and research. Scholarships and maintenance allowances for educational purposes, wages and allowances paid to industrial trainees and grants (other than for investment) to private non-profit universities, technical institutes, schools and research centres and the arts.

   b) Health. Sickness and maternity benefits, grants to private non-profit hospitals, sanatoria, etc. and payments from social security funds which are reimbursements for health expenditures included in private consumption.

   c) Social security and assistance. Unemployment benefit and relief payments, old-age pensions, widows' and guardians' allowances, family allowances, accident and inquiry benefits and grants to private non-profit institutions which undertake social welfare work.

   d) Other. War bonuses, war pensions, service grants and all other grants to households and private non-profit institutions not included above.

4. Consumption expenditure. See Table 1, item 1.

5. Direct taxes. All taxes levied on the income of households and private non-profit institutions such as personal income taxes, surtaxes, etc. Social security contributions of both employers and employees are included here.

6. Other current transfers to general government. Certain payments by households and private non-profit institutions that are not included in consumption expenditure, such as school fees, fees for passports, driving tests, identification papers, fines and other penalties paid to general government.

7. Saving. Income less expenditure (i.e. items 1 + 2 + 3 less items 4 + 5 + 6).

8. Net capital and international transfers received. Net capital transfers from general government plus net international transfers received less net capital transfers to domestic capital formation. The first two of these flows are defined in Tables 8 and 9 respectively.

   Net capital transfers to domestic capital formation covers the value of all net capital formation in unincorporated enterprises, private non-profit institutions and owner-occupied houses with the exception of capital formation financed out of general government grants for capital formation purposes. The net flow of capital grants from corporations to households and private non-profit institutions is deducted.

6. Receipts and expenditures of households and private non-profit institutions

Country _____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
35	4.5	1. Compensation of employees							
	4.6	2. Income from property and entrepreneurship less interest on consumers' debt							
	+4.8	3. Current transfers from general government							
		Income							
26	4.1	4. Consumption expenditure							
37	4.2	5. Direct taxes							
37	4.3	6. Other current transfers to general government . . .							
		Expenditures							
37	4.4	7. Saving							
38	4.13	8. Net capital and international transfers received							
39	4.11	Net lending							

Country notes

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 7a.

In the classification of private consumption expenditure some instances arise in which the products purchased are a composite of two or more goods or services which it is convenient to keep distinct. The most important cases are food, beverages and tobacco sold together with specific services in restaurants, hotels and boarding houses. Food, beverages and tobacco purchased in these places are included in items 1, 2 and 3, respectively, and are valued at ordinary retail prices while the balance of expenditure in such places is included in item 11.

Similarly, the total expenditure of boarding schools, colleges, clubs and other private non-profit institutions is allocated to the respective product groups (such as education) after a deduction for such items as food which is included in item 1.

Dealers' margins on second-hand transactions are allocated to the respective product groups. A similar allocation is made of gifts in kind received from the rest of the world.

Since expenditure of non-residents in the country and gifts in kind sent abroad normally cannot be deducted from each item of private expenditure, adjustments in respect of both these items are made at the end of the table.

A more detailed analysis of the composition of the respective categories will be found in Appendix 2 of A System of National Accounts and Supporting Tables.

1. Food. All food including purchases in restaurants, etc., consumption of own products by producers and food provided to employees including members of the armed forces.

2. Beverages. Includes soft drinks and all alcoholic beverages.

3. Tobacco.

4. Clothing and other personal effects. All clothing including footwear and personal effects such as leatherware, jewellery and watches

5. Rent and water charges. All gross rent paid by tenants, imputed gross rent on owner-occupied dwellings, and indoor repairs and upkeep paid for by tenants.

6. Fuel and light. Purchases of coal, gas, electricity, firewood, etc.

7. Furniture, furnishings and household equipment. All purchases of durable household goods such as furniture, household textiles, electrical appliances, wireless sets, etc.

8. Household operation. Includes wages paid to domestic servants, purchases of non-durable household goods and all repair, insurance and similar services incidental to durable household goods and clothing.

9. Personal care and health expenses. Purchases of toilet articles and medicines, payments to doctors and hospitals.

10. Transportation and communication. Purchases and operating cost of transport equipment, purchases of transportation and communication services.

11. Recreation and entertainment. Expenditures on entertainment, hotels, restaurants, hobbies, and purchases of books and other printed matter.

12. Miscellaneous services. Actual and imputed bank charges, life insurance, education and research and various personal services.

13. Expenditure of residents abroad. All expenditure on foreign travel except that part which is charged to business expense.

7a. Composition of private consumption expenditure

At current market prices

Country _____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
26 and A1		1. Food							
		2. Beverages							
		3. Tobacco							
		4. Clothing and other personal effects							
		5. Rent and water charges							
		6. Fuel and light							
		7. Furnitures, furnishings and household equipment .							
		8. Household operation							
		9. Personal care and health expenses							
		10. Transportation and communication							
		11. Recreation and entertainment							
		12. Miscellaneous services							
		13. Expenditure of residents abroad							
		14. Less expenditure of non-residents in the country							
		15. Less value of gifts sent abroad							
		Consumption expenditure of households and private non-profit institutions							

Country notes

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 7b.

This table records the various components of private consumption expenditure given in Table 7 a. in constant market prices.

A brief account of the methods employed in expressing these components in constant prices should be given together with a description of the scope and coverage of the price indexes or volume indexes used in this work.

7b. Composition of private consumption expenditure

At constant market prices

Country _____

S.N.A 1/ Page ref.	S.N.A 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
26 and 41		1. Food							
		2. Beverages							
		3. Tobacco							
		4. Clothing and other personal effects							
		5. Rent and water charges							
		6. Fuel and light							
		7. Furnitures, furnishings and household equipment .							
		8. Household operation							
		9. Personal care and health expenses							
		10. Transportation and communication							
		11. Recreation and entertainment							
		12. Miscellaneous services							
		13. Expenditure of residents abroad							
		14. Less expenditure of non-residents in the country							
		15. Less value of gifts sent abroad							
		Consumption expenditure of households and private non-profit institutions							

Country notes

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 8.

1. Income from property and entrepreneurship. See Table 3, item 6.

2. Less interest on the public debt. See Table 3, item 7.

3. Indirect taxes. Taxes on goods and services which are chargeable to business expense and taxes on the possession or use of goods and services by households. The main categories are import, export and excise duties, local rates, entertainment duties, betting taxes, sales taxes, business licences, stamp duties and motor vehicle duties. Profits of state monopolies should also be included.

Real estate and land taxes are treated as indirect taxes unless they are considered merely administrative devices for the collection of income taxes.

4. Direct taxes on corporations. See Table 3, item 5.

5. Direct taxes on households and private non-profit institutions. See Table 6, item 6.

7. Consumption expenditure. See Table 1a. item 2.

8. Subsidies. Current grants made by public authorities to producers. These may take the form of direct payments to producers or of a differential between the buying and selling prices of government trading organisations. The value of coupons made available by government to specific groups of the population to enable them to obtain goods at prices lower than the current market prices are not included here but in government transfers to households (item 9).

9. Current transfers to households and private non-profit institutions. See Table 6, item 3.

10. Saving. Current revenue less expenditure.

11. Net international transfers received. This flow is defined in the notes to Table 9 item 6c.

12. Capital transfers from households and private non-profit institutions. Such payments as death duties, gift taxes, capital levies and confiscations.

13. Capital transfers from corporations. Such payments as capital levies and confiscations.

14. Capital transfers to households and private non-profit institutions. Such transfers as war-damage payments in respect of personal effects. Investment grants to unincorporated enterprises and private non-profit institutions are included in item 15.

15. Capital transfers to domestic capital formation. Includes (a) the value of all net capital formation in government enterprises and general government and (b) all capital grants to finance domestic capital formation in the private sectors and public corporations such as compensation for war damage, direct investment grants, etc.

8. General government revenue and expenditure

Country _____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
36	5.5	1. Income from property and entrepreneurship							
	5.6	2. Less interest on the public debt							
	5.7	3. Indirect taxes							
	5.8	4. Direct taxes on corporations							
37	5.9	5. Direct taxes on households and private non-profit institutions							
	5.10	6. Other current transfers from households and private non-profit institutions							
		Current revenue							
27	5.1	7. Consumption expenditure							
28		a. Civil							
		b. Defence							
36	5.2	8. Subsidies							
37	5.3	9. Current transfers to households and private non-profit institutions							
		Current expenditure							
37	5.4	10. Saving							
38	5.14	11. Net international transfers received							
	5.13	12. Capital transfers from households and private non-profit institutions							
	less	13. Capital transfers from corporations							
	5.11	14. Less capital transfers to households and private non-profit institutions							
		15. Less capital transfers to domestic capital formation							
		a. Finance of capital formation in general government and government enterprises . . .							
		b. Other grants to capital formation							
39	5.15	Net lending							

1/ To facilitate the entry of the data in this table, reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables

Notes to Table 9.

1. Exports of goods and services

   a. Merchandise. The data are obtained by adjusting national statistics of exports to correspond to credit items 1 and 2 in Table I of the Balance of Payments Manual of the International Monetary Fund with the exception of military equipment transferred from the government to other governments. Sales to foreign visitors and to foreign ships are excluded from item 1.a and included in item 1.b of the facing page.

   Net exports of non-monetary gold are included here together with domestically produced gold entering into the monetary reserves. Net increases in private hoards of gold and partly worked gold for personal use are also entered; an adjustment is therefore required to the non-monetary gold movement as recorded in the Balance of Payments Manual.

   b. Other. All other current receipts with the exception of these defined below as factor income or as international transfers (items 2, 4, and 6).

2. Factor income received from the rest of the world. This flow together with item 4 corresponds to item 6 of Table I of the Balance of Payments Manual except that (i) workers' earnings, profits, copyrights, patents and royalties appearing in items 1.1, 5, 9, 11 and 12 of Table IX and (ii) salaries paid to foreigners or received from foreign agencies appearing in items 1.1, 21 and 22 of Table VIII of the Balance of Payments Manual have been included. In principle these transactions are valued gross of taxes and consumption expenditure incurred abroad by the recipient with the exception of taxes assessed directly on a branch or subsidiary. The Balance of Payments Manual enters these flows net of taxation.

3. Imports of goods and services. The content of the two flows distinguished here is indicated in the note to item 1. It should be noted that where merchandise imports are recorded on a c.i.f. basis, that is, in accordance with United Nations recommendations for foreign trade statistics, an equal deduction is required from both debit and credit side of the account for insurance and freight payments to residents.

4. Factor income paid to the rest of the world. See item 2.

5. Surplus of the nation on current account. Current receipts from the rest of the world less current payments to the rest of the world.

6. Net international transfers received by

   a. Corporations. Part of item 9.1 in Table I and of item 2.5 in Table VIII of the Balance of Payments Manual (BPM)

   b. Households and private non-profit institutions. All unilateral payments whether in cash or in kind including all net transfers between unincorporated enterprises and the rest of the world. Remittances, legacies and migrants' transfers to and from abroad (remaining parts of items 9.1 and 9.2 in Table I of the BPM), taxes paid to foreign governments (part of item 2.5 in BPM Table VIII), transfers (including pensions, etc.) received from foreign governments (item 2.3 in BPM Table VIII) and other transfers received from abroad (items 2 and 13 in BPM Table IX) are entered here.

   c. General government. All unilateral payments between general government and government enterprises and the rest of the world whether in cash or kind, excluding transfers of military equipment. It includes such transactions as economic aid, relief shipments, reparations, grants to colonial governments and under-developed countries, contributions to international organisations and taxes received from non-residents.

9. External transactions

Country _____

S.N.A. 1/ Page ref.	S.N.A. 1/ Flow no.		1938	1950	1951	1952	1953	1954	1955
			(Unit of currency . . . . .)						
31	6.1	1. Exports of goods and services							
		a. Merchandise							
		b. Other							
34		2. Factor income received from the rest of the world							
		Current receipts from the rest of the world . . .							
31	6.3	3. Imports of goods and services							
		a. Merchandise							
		b. Other							
34		4. Factor income paid to the rest of the world . . .							
		Current payments to the rest of the world . . .							
	6.4	5. Surplus of the nation on current account . . .							
		6. Net international transfers received by							
38	-6.6	a. Corporations							
	-6.7	b. Households and private non-profit institutions							
	-6.8	c. General government							
39		Net lending to the rest of the world							

Country notes

1/ To facilitate the entry of the data in this table reference is made in the first two columns to the specific page and flow numbers of the items as described in A System of National Accounts and Supporting Tables